ICF-SW1000T

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model

Model Name Using Similar Mechanism	WM-EX606
Tape Transport Mechanism Type	MT-WMRX707-60

SPECIFICATIONS

Radio section

Circuit system
FM: Super heterodyne
AM: Dual conversion super heterodyne

Frequency range

Band	Italy model	Saudi Arabia model	Other model
FM	87.5-108.0 MHz	87.5-108.0 MHz	76.0-108.0 MHz
SW	3850-26100 kHz	1621-26100 kHz	1621-29999 kHz
MW	530-1620 kHz	530-1620 kHz	530-1620 kHz
LW	150-285 kHz	150-285 kHz	150-529 kHz

Intermediate frequency
FM: 10.7 MHz
SW/MW/LW: 55.845 MHz (1st)
455 kHz (2nd)

Cassette-Corder

Track system
Compact cassette stereo

Frequency response
Playback: 20-18,000 Hz
Recording/Playback: 70-8,000 Hz

General

Speaker
Approx. 45 mm (1 13/16 inches) diameter, 8 ohms, one speaker system

Maximum output
250 mW (at 10% harmonic distortion)

Power requirements
RADIO BATT: DC 3 V, two R6 (size AA) batteries
TAPE BATT: DC 1.5 V, one R6 (size AA) battery

External power source
DC 3 V

Output
One ∩ (headphones) jack (stereo minijack)
16 ohms

Input
One mixing microphone input jack (stereo minijack)

Dimensions
Approx. 176×105×40 mm (w/h/d)
(7×4 1/4×1 5/8 inches incl. projecting parts)

Mass
Unit approx. 464 g (1 lb 0.4 oz)
Approx. 593 g (1 lb 4.9 oz) incl. alkaline batteries, C-60HF tape, headphones, and strap

FM STEREO/SW/MW/LW
PLL SYNTHESIZED RECEIVER
STEREO CASSETTE-CORDER

SONY®

Supplied accessories

- Stereo headphones (1)
- Ear pads (2)
- Stereo microphone (1)
- Compact antenna (1)
- Antenna connector (1)*1
- Carrying case (1)
- Hand strap (1)
- Wave Handbook (1)*2
- Shortwave Guide (1)*1
- Batteries (3)*1

Your dealer may not handle some of the above listed optional accessories. Please ask your dealer for detaiked information on the optional accessories available in your country.

Design and specifications are subject to change without notice.

*1For the World model only.
*2Not applicable for the Saudi Arabian model.
*3For the saudi Arabian model only.

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SECTION 1
SERVICING NOTE

Hall element H501 mounted on the MD board is used to detect rotation of the reels. Because it is mounted on the MD board, when the MD board is being removed, rotation of the reels cannot be detected and the auto-off/tape-end detector circuit does not operate correctly.
Switch S502 (for N/R and FF/REW) is also mounted on the MD board. Therefore, without the MD board, the head cannot be placed in playback position, and power cannot be supplied to the circuitry of the playback system.
When the MD board is being removed, follow the procedures below, in order to check operation of the mechanisms of the tape deck and to check voltages supplied to each circuit.

NOTE:

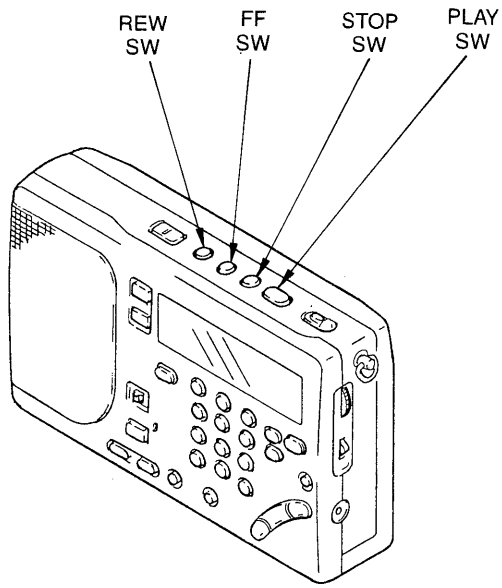
Do not change the setting position of switch S502 when removing the MD board. If it has been changed accidentally, or if the desired mode cannot be set with the switch, adjust the setting again after the MD board is installed.

FF/REW mode

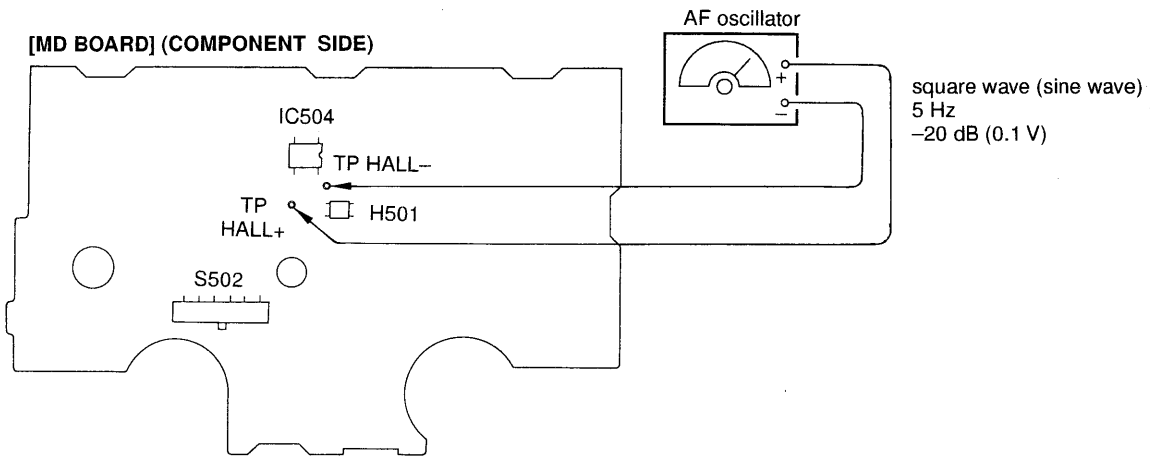
(1) Apply a square wave signal or a sine wave signal to hall element H501. (See the figure on the below.)
(2) Press the STOP switch for selecting STOP mode.
(3) Press the FF or REW switch.
(4) Remove the MD board.

PLAY mode

(1) Apply a square wave signal or a sine wave signal to hall element H501. (See the figure on the below.)
(2) Press the STOP switch for selecting STOP mode.
(3) Press the PLAY switch. With the MD board installed, pressing the PLAY switch selects the FWD or REV mode alternatively.
(4) Remove the MD board.

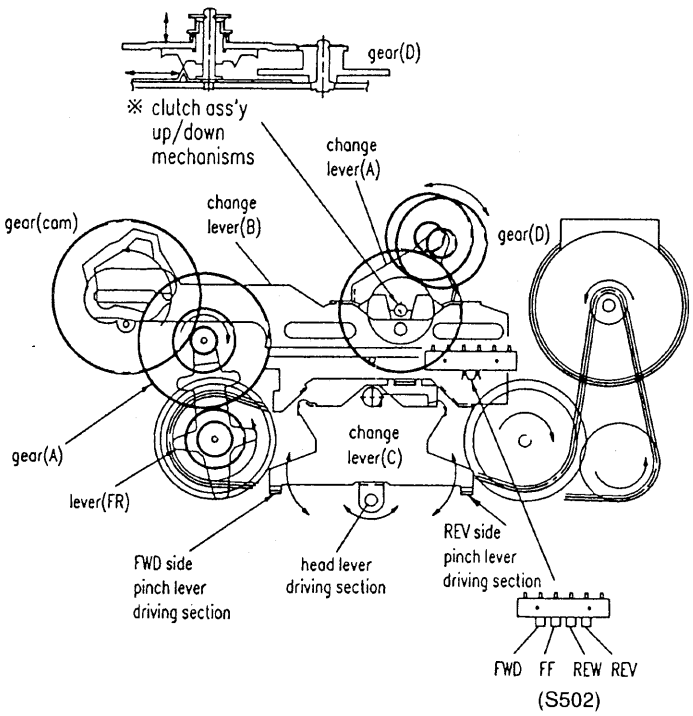


FRONT CABINET



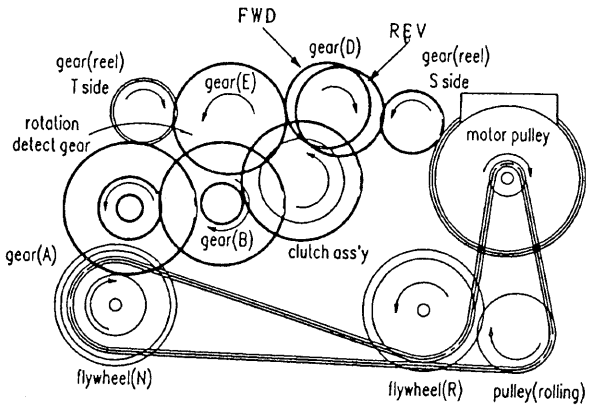
Function of the lever and rotating mechanisms for mode selection

- Mode selection starts when the motor rotates reversely.
- Change lever (B) moves to the left or right when driven with the gear (cam).
- The switch set position of switch S502 (4-position switch) is detemined in accordance with the position of Change lever (B). When the switch set position is set appropriately, the motor rotates normally and the tape starts moving.

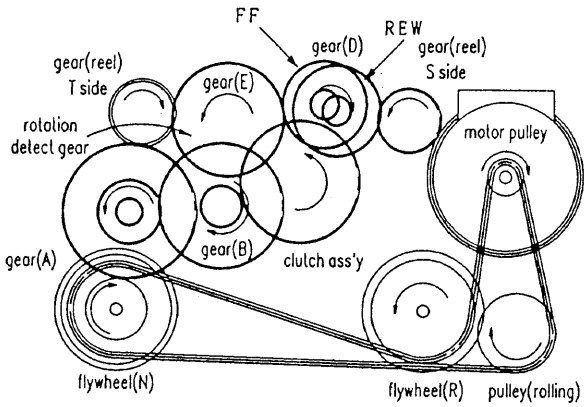


- Lever (FR) is driven with gear (A) by friction, and it swings to the left or right depending on the rotating direction of the motor.
- Selector levers (A) and (C) also swing to the left or right in accordance with the movement of chang lever (B), and the clutch assembly moves upward or downward accordingly.
- The pinch roller is activated and the head is placed in playback position with selector lever (C).
- When the mode is switched from one mode to another, the pinch roller is activated while the motor is rotating reversely (for a short period of time), causing a little slackness in the tape transport.

1. Rotating Mechanisms In PLAY Mode



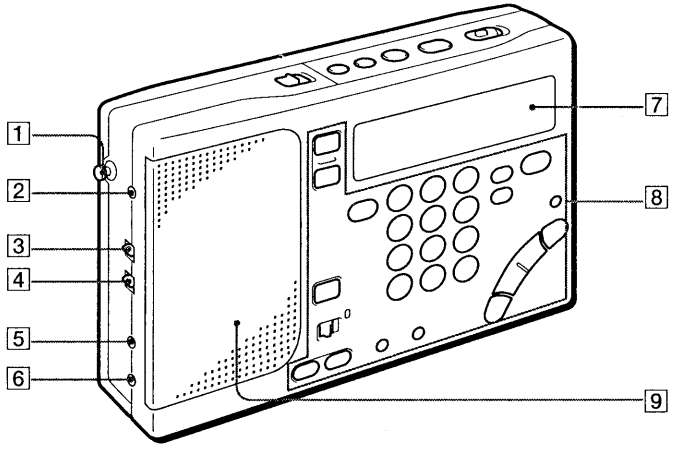
2. Rotating Mechanisms in FF, REW Mode



Location of controls

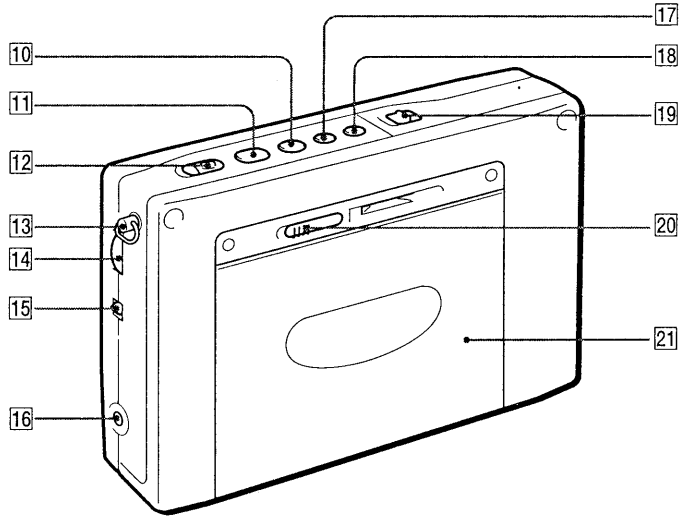
Refer to the pages indicated in ( ) for details.

Front



1 Telescopic antenna (9)
2 EXT ANT jack (22)
3 SENS DX•LOCAL (FM/AM sensitivity) selector (9)
4 ST•MONO (stereo/monaural) selector (9)
5 MIC jack (25)
6 ∩ (headphones) jack
7 Display
8 Control panel
9 Speaker

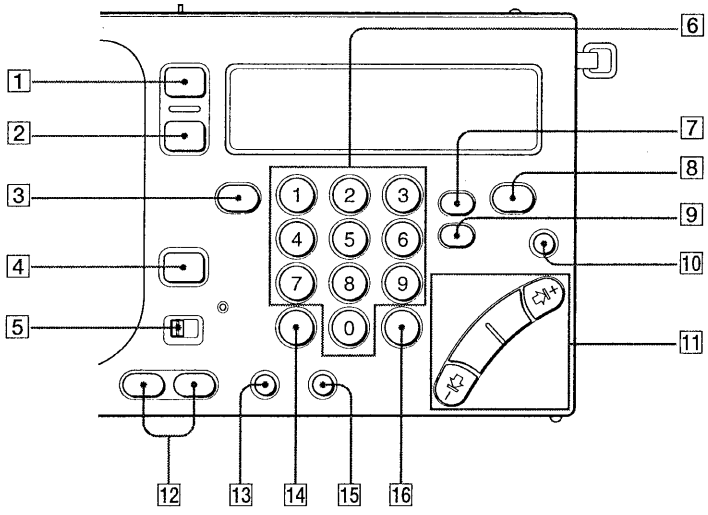
Rear



10 ■ (stop) button (10, 11)
11 ◄► (play) button (10, 11)
12 REC (record) switch (13)
13 Hand strap retainer (33)
14 VOLUME control (9)
15 TONE selector (9)
16 DC IN 3V ⟐⟐⟐ (external power input) jack (35)
17 FF (fast forward) button (11)
18 REW (rewind) button (11)
19 HOLD switch (32)
20 ◅ OPEN (cassette compartment opener) control (10)
21 Cassette compartment

This section is extracted from instruction manual.

Control panel



1 RADIO POWER ON/OFF button (8)

2 SLEEP button (29)

3 FM/AM button (8)

4 STANDBY ON/OFF button (27)

5 MODE selector (28)

6 MEMORY PRESET/DIRECT TUNE numeric buttons (16, 17)

7 SYNC (Synchronous detection) button*1 (20)

8 PAGE button (17, 18)

9 SSB (Single Side Band) button*2 (19)

10 LIGHT button
Press this button to turn on the light for about 20 seconds for display viewing in the dark.

11 MANUAL TUNE/ SCAN•STANDBY TIME SET/ TIME SET buttons (8)

12 STANDBY MEMORY•STANDBY TIME SET buttons (27, 30)

13 ENTER•TIME SET button (7, 17)

14 DIRECT button (16)

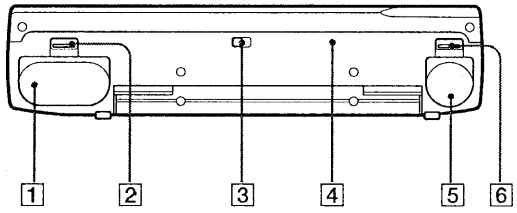
15 AM BAND button (8)

16 EXE•DISPLAY button (7, 16)
Press this button to display the clock while operating the radio or cassette.
Press again to return to the previous display.

*1 SYNC U button for the Saudi Arabian model.

*2 SYNC L button for the Saudi Arabian model.

Base



1 RADIO BATT battery holder (6)

2 OPEN (RADIO BATT opener) control (6)

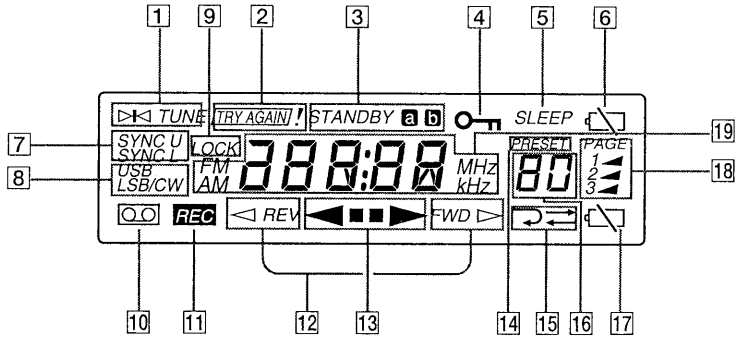
3 ISS (AM interference suppression) selector (13)

4 RESET button
Press this button with a pointed object when the unit fails to function properly. When this button is pressed, the preset broadcast stations and the clock settings are erased.

5 TAPE BATT battery holder (6)

6 OPEN (TAPE BATT opener) control (6)

Display



1 TUNE indicator (16)
Appears when a broadcast station is tuned.

2 TRY AGAIN! indicator (16, 21)
Flashes when an invalid MW tune interval or an invalid frequency (direct tuning) is entered.

3 STANDBY a / b indicators (27, 30)
Appear when the standby function is operational.

4 HOLD indicator (32)
Appears when the HOLD function is operational. All buttons will be locked and will not be operational.

5 SLEEP indicator (29)
Appears when the sleep timer is operational.

6 (low radio batteries) indicator (34)

7 SYNC U/SYNC L (synchronous detection) indicators (20)

8 USB/LSB/CW (single side band/continuous wave) **indicators*** (19)

9 LOCK (synchronous detection) indicator (20)
Appears when synchronous detection mode is operational.

10 (cassette) indicator
Appears when a cassette is inserted.

11 REC (record) indicator

12 REV/FWD (tape direction) indicators (10)

REV appears when the current tape direction is the side facing the unit (reverse side). FWD appears when the current tape direction is the side facing the cassette compartment cover.

13 (tape operation) indicators

14 PRESET indicator

15 / (playback/recording mode) indicators (10)

16 Preset number/sleep duration display (17, 18, 29)

17 (low tape battery) indicator (34)

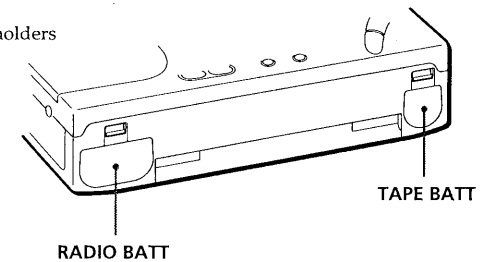
18 PAGE (page number) indicators (17)

19 Frequency/time/tape operation display

* Not applicable for the Saudi Arabian model.

Inserting the batteries

Insert the batteries to operate the unit with batteries.
Insert the batteries into both battery holders when using the cassette.

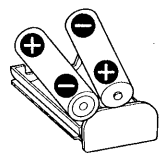


To operate the unit with house current or car battery, refer to "Operating with house current or car battery" on page 35.

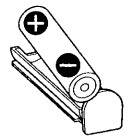
1

Push the OPEN tabs and remove the RADIO BATT and TAPE BATT battery holders.

2



Insert with the correct ⊕⊖ polarity as indicated.



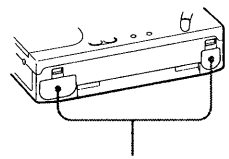
Insert two R6 (size AA) batteries into the RADIO BATT battery holder and insert one R6 (size AA) battery into the TAPE BATT battery holder.

Note

It is not necessary to insert a battery into the TAPE BATT battery holder if you wish to operate the radio only. However, to use the cassette, insert the batteries into both the RADIO BATT and TAPE BATT battery holders.
Otherwise, the unit may not operate properly.

3

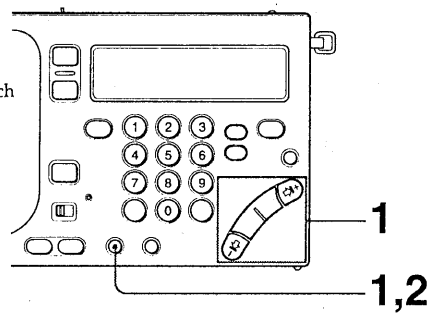
Insert both battery holders back into the unit.



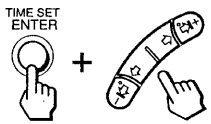
Insert until it clicks.

Setting the clock

Set the clock when you initially insert the batteries or when the clock is reset at which time "0:00" flashes.



1



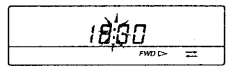
Press and hold TIME SET • ENTER while pressing HOUR or MIN repeatedly until the correct time is displayed.

Each time MIN (⇦ or ⇨) is pressed, the minute will decrease (⇦) or increase (⇨) by one minute. Each time HOUR (⊣⇦ or ⇨⊢) is pressed, the hour will decrease (⊣⇦) or increase (⇨⊢) by one hour.

Press and hold the button to decrease or increase rapidly.

2

Release TIME SET • ENTER.



The ":" starts flashing and the clock operates.

Tips

- The clock is displayed in 24-hour indication.
- Press TIME SET• ENTER to stop the flashing of "0:00".
- To set the clock accurately, release TIME SET • ENTER at the time of the tone.

To display the clock

Press EXE to display the clock while operating the radio or the cassette. The current time appears for about 10 seconds and then the previous display returns. However, the clock cannot be displayed while scan tuning.

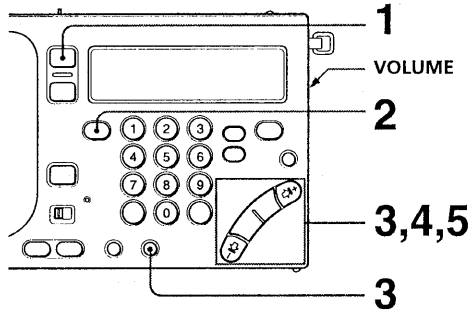
While the clock is displayed, press EXE again to return to the previous display.

Note

You cannot set the clock while operating the radio or the cassette.

Press RADIO POWER ON/OFF to turn off the radio, or press ■ to stop the tape.

Listening to the radio—Scan tuning



To manually tune in to the desired broadcast staion, refer to "Manual tuning" on page 14.

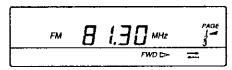
To immediately tune in to the desired broadcast station, refer to "Direct tuning" on page 16.

To preset a broadcast station for instant recall, refer to "Preset tuning" on page 17.

1

Press RADIO POWER ON/OFF.

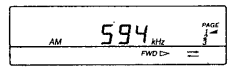
The radio turns on.



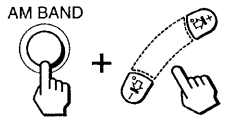
2

Press FM/AM to select either FM or AM.

Select AM to listen to SW, MW or LW.



3



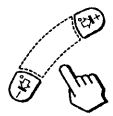
When you select AM, press ⊣⇦ or ⇨⊢ while pressing AM BAND to select MW, LW, or meter band (SW)*.

Skip this step and proceed to step 4 if you wish to listen to FM.

* For details on the meter band, refer to "Meter bands and SW" on page 15.

The minimum frequency allocation for each band is displayed.

4



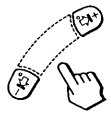
Press and hold ⊣⇦ or ⇨⊢ and release when scanning of the frequency begins.

When a broadcast station is received automatically, scanning pauses for about 2 seconds. Then, scanning resumes to tune in to the next broadcast station.

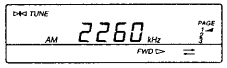
Scanning repeats in a cycle within the meter band frequency range (see page 15). Scanning during SSB reception repeats in a cycle within the 150-29999 **kHz frequency range.***

* Not applicable for the Saudi Arabian model.

5



Press −I⇦ or ⇨I+ to stop scanning and to listen to the currently tuned broadcast station.



Tips

- To enjoy FM stereo reception, plug the stereo headphones. Set ST • MONO to ST or MONO to select stereo or monaural reception as necessary.
- When listening to news, set TONE to NEWS for optimum results. Vocal output will be sharper and clearer. When listening to music, set to MUSIC for optimum results.
- During MW reception at nighttime when radio wave intensity is dramatically stronger, or when interference is prevalent, scanning may tend to tune in to almost every null broadcast. Set SENS to LOCAL so that the null broadcast of weaker radio wave intensity is skipped. Under normal conditions, set to DX.

Note

When reception does not improve, connect an external antenna (see page 22).

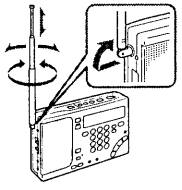
Other operations

To	Press or turn
Fine tune the reception	−I⇦, ⇦, ⇨, ⇨I+
Adjust the volume	VOLUME
Turn off the radio	RADIO POWER ON/OFF

To improve reception

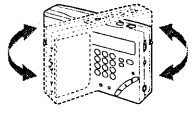
For FM reception

Gently pull out the telescopic antenna and adjust the length, angle and direction to obtain optimum reception.



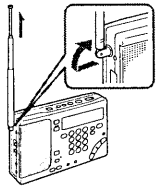
For MW/LW reception

Retract the telescopic antenna and rotate the unit to reorient the built-in ferrite bar antenna to obtain optimum reception.

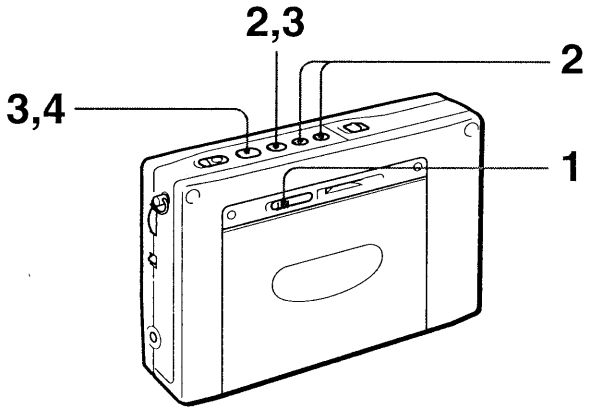


For SW reception

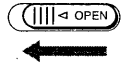
Gently pull out the telescopic antenna to its full length and set vertically to obtain optimum reception.



Playing a cassette

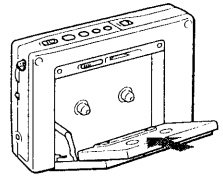


1

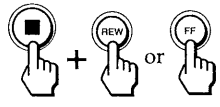


Slide OPEN and insert a cassette.

Remove the slack of the tape and insert the cassette with the exposed side facing down.

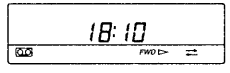


2



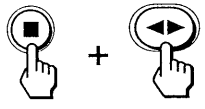
Select whether you wish to play one side or both sides of the cassette.

To play one side: Press FF while pressing ■.
To play both sides: Press REW while pressing ■.



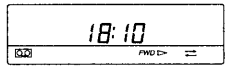
⇆ : **one side**
⇄ : **both sides**

3



Press ◀▶ while pressing ■ to select the side you wish to play.

To play the side facing the cassette holder (forward side): Display "FWD ▷".
To play the side facing the unit (reverse side): Display "◁ REV".



4

Press ◀▶.

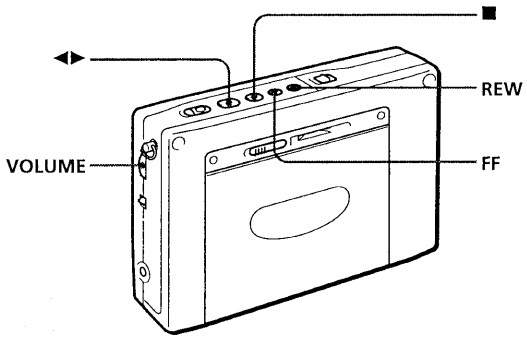
Tips

- To enjoy stereo-recorded cassettes, plug the stereo headphones. Set ST • MONO to ST or MONO to select stereo or monaural as necessary.
- The ATS (Auto Tape Selector) function automatically determines and selects the type of cassette you wish to use for playback only: Normal or CrO_2/Metal cassette.

Note

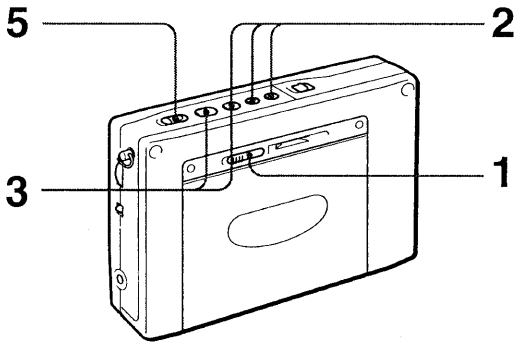
The reverse side only is played when playback begins from the reverse side of the cassette.

Other operations



To	Press or turn
Adjust the volume	VOLUME
Switch the playback side	◀▶ during playback
Stop playback, FF, REW, and REC	■
Fast forward	FF during stop
Rewind	REW during stop
Fast forward while monitoring the sound (cue)	FF during playback
Rewind while monitoring the sound (review)	REW during playback

Recording radio broadcasts



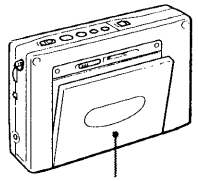
To record with a microphone, refer to "Recording with a microphone" on page 25.

1

Slide OPEN and insert a cassette.

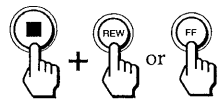
Note

Before inserting a cassette, make sure that the cassette tab is not broken off.
A cassette with a broken tab cannot be recorded.



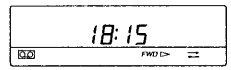
Insert the cassette with the side you wish to record facing the cassette holder.

2



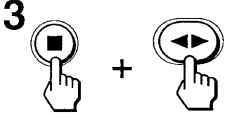
Select whether you wish to record one side or both sides of the cassette.

To record one side: Press FF while pressing ■.
To record both sides: Press REW while pressing ■.

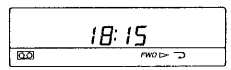


⇄: Records one side.
⇄: Records both sides.

3



Press ◀▶ while pressing ■ to display "FWD ▷".

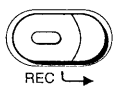


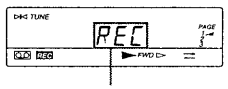
4

Tune in to the desired broadcast station you wish to record.

Refer to pages 8 and 14-18.

5 Press the red button in the center and slide REC.





After a few seconds, the frequency is displayed.

Tips

- Adjusting VOLUME and TONE does not affect the sound to be recorded.
- Speaker output is monaural when recording. To enjoy FM stereo reception, plug the stereo headphones.
- Recording stops automatically when RADIO POWER ON/OFF is pressed to turn off the radio.

Notes

- Use Type I (normal) cassettes only for recording. Playback may be distorted or a previously recorded segment may not be erased completely when a CrO_2 or metal cassette is used.
- Recording with weak batteries generates unnecessary noise and produces unsatisfactory recordings. In this case, replace the batteries with new ones.
- Operate REC approximately 2 seconds prior to the point you wish to begin recording. If not, the leading segment may not be recorded.
- Switching the recording side is not possible when ◀▶ is pressed during recording.
- The buttons for the radio are operational while recording. To prevent accidental operations, use the hold function (see page 32).

To stop recording

Press ■.

To record the side facing the unit (reverse side)

Insert the cassette with the side you wish to record facing the unit (reverse side). Press ◀▶ while pressing ■ to display "◁ REV".

Recording stops on the side facing the unit regardless of whether one side or both sides is selected.

To record an FM stereo broadcast

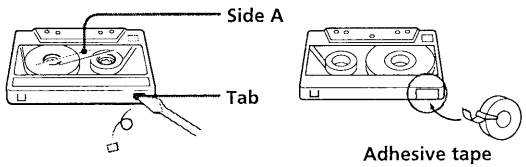
Set ST • MONO to ST or MONO to select stereo or monaural recording as necessary.

To improve AM reception for recording

When recording an AM broadcast, the reception may contain noise interferences that were not present prior to recording. In this case, set ISS on the bottom of the unit to the position (1, 2 or 3) in which noise interferences are minimal to obtain optimum reception for recording.

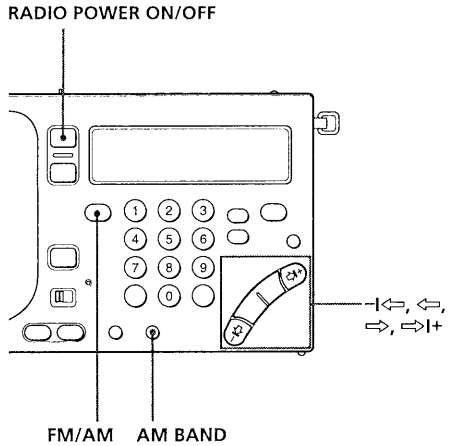
To protect your important recorded cassettes

Break off the cassette tab of side A or B to prevent accidental recording of your important cassettes. If you wish to use the cassette for recording again, cover the opening of the broken tab with adhesive tape.



"⊡" flashes when recording is attempted on a cassette with a broken tab. A cassette with a broken tab cannot be recorded.

Various tuning methods for optimum reception



Manual tuning

Use ⊣⇦ ,⇦ ,⇨ ,and ⇨⊢ search for the desired broadcast station. Use the outer buttons to search rapidly in large frequency increments. Use the inner buttons to search precisely in small frequency increments.

Tips

- The previously tuned broadcast station is received when you turn on the radio.
- When ⇦ or ⇨ is pressed repeatedly in the AM band (MW, SW, and LW), the frequency repeats through the range of 150–29,999 kHz to enable search of all available broadcast stations (not applicable for the Saudi Arabian model*1).

  *1 For the Saudi Arabian model when ⇦ or ⇨ is pressed repeatedly in the AM band (MW, SW, and LW), the frequency repeats through the ranges of 150–285 kHz and 530–26,100 kHz.

1 Turn on the radio.

2 Select either FM or AM.

Select AM to listen to SW, MW or LW.

3 When you select AM, press ⊣⇦ or ⇨⊢ while pressing AM BAND to select MW, LW or meter band (SW).

Skip this step and proceed to step 4 if you wish to listen to FM.

4 Press ⊣⇦ ,⇦ ,⇨ ,and ⇨⊢ repeatedly to search for the desired broadcast station.

Each time the buttons are pressed, the channel step changes as shown below.

Band	⊣⇦ or ⇨⊢	⇦ or ⇨
FM	0.05 MHz	0.05 MHz
SW	5 kHz	1 kHz
MW	9/10 kHz	1 kHz
LW	9 kHz	1 kHz
SSB (AM) *2	1 kHz	0.1 kHz*3

*2 Not applicable for the Saudi Arabian model.

*3 Units of 0.1 kHz is not indicated in the display.

Note

The SW frequency range and meter band may differ from the actual value. Refer to the supplied "Wave Handbook" for more information on worldwide band coverage (not applicable for the Saudi Arabian model).

Refer to the supplied "Shortwave Guide" for more information on shortwave band coverage (for the Saudi Arabian model only).

Meter bands and SW

SW is divided into 14 bands that are generally referred to as meter bands. The frequency range that is applicable for automatic scanning is shown below.

(kHz for AM, MHz for FM)

Band		Frequency Range	Scan Frequency Range	Meter band
AM	LW	150–529 150–285 *1	153–522 153–279 *1	—
	MW	530–1620	530–1620 *2	—
			531–1620 *3	—
	SW	1621–29999 1621–26100 *1	2250–2550	120 meter band
			3150–3450	90 meter band
			3850–4050	75 meter band
			4700–5100	60 meter band
			5900–6250	49 meter band
			7100–7400	41 meter band
			9400–10000	31 meter band
			11500–12150	25 meter band
			13500–13900	22 meter band
			15000–15700	19 meter band
			17450–18000	16 meter band
			18850–19100	15 meter band
			21450–21950	13 meter band
			25600–26100	11 meter band
FM		76.00–108.00 87.50–108.00 *1	76.00–108.00 87.50–108.00 *1	—

*1 For the Saudi Arabian model only.

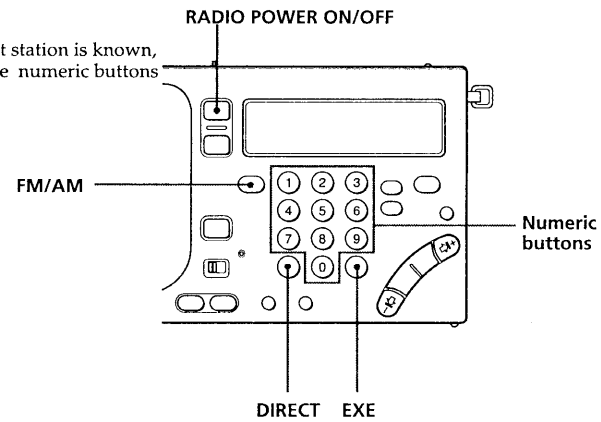
*2 When the channel step is 10 kHz (see page 19).

*3 When the channel step is 9 kHz (see page 19).

Various tuning methods for optimum reception (continued)

Direct tuning

When the desired broadcast station is known, enter the frequency with the numeric buttons for immediate selection.



Tips

- When you have entered the wrong frequency in step 4, press DIRECT to cancel the current entry and enter the correct frequency.
- "TRY AGAIN!" flashes when the frequency entered is invalid and beyond the allocated frequency range for reception. Check and make sure that the frequency is valid and repeat from step 3 again.
- The minimum digit entry is 0.05 MHz (50 kHz) for the FM band, and 1 kHz for the AM band.

Note

Complete each button operation in steps 3 to 5 within 10 seconds. If the previously tuned frequency appears in the display, repeat from step 3 again.

1 Turn on the radio.

2 Select either FM or AM.

Select AM to listen to SW, MW or LW.

3 Press DIRECT.

The frequency in the display disappears.

4 Enter the frequency of the desired broadcast station by pressing the numeric buttons.

FM band: A decimal point is not required for entry.

For example, to enter 84.7 MHz, press 8, 4 and 7.

AM band: The lower triple zero digits are omitted for entry.

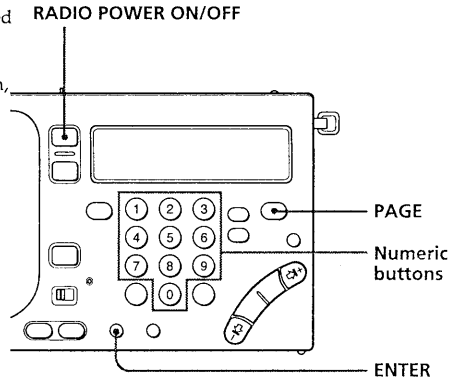
For example, to enter 10,000 kHz, press 1 and 0.

5 Press EXE.

When the desired broadcast station is received, "▷|◁ *TUNE*" appears in the display.

Preset tuning

Your favorite broadcast stations can be stored on a total of 3 pages. Each page can store up to 10 broadcast stations.
Before tuning in to a preset broadcast station, you must complete the procedure below to preset your favorite broadcast stations.



1 Turn on the radio.

2 Tune in to the desired broadcast station you wish to preset.

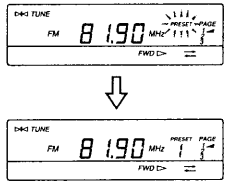
3 Press PAGE repeatedly to select the page you wish to store your favorite broadcast station on.

Each time you press PAGE, the display changes in the following order:

1 → 2 → 3

4 Press a numeric button (0–9) while pressing ENTER.

When FM 81.9 MHz is assigned to preset number 1 of page 1.



The broadcast station is assigned to the selected number.

Tip

To change and modify the preset broadcast station, store the new broadcast station to the selected preset number. The previous preset broadcast station is overwritten by the new preset broadcast station.

Various tuning methods for optimum reception (continued)

Tuning in to a preset broadcast station

1 Turn on the radio.

2 Press PAGE repeatedly to select the page which contains the desired preset broadcast station you wish to tune in to.

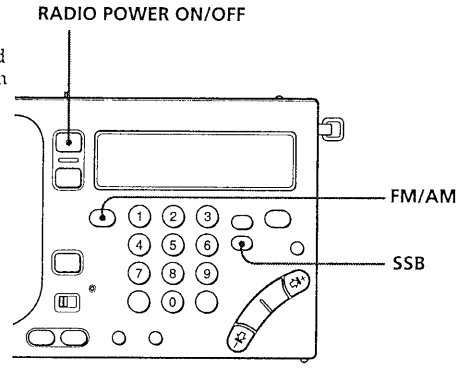
3 Press the numeric button (0–9) to which the desired broadcast station you wish to tune in to is assigned.

The desired preset broadcast station is received.

Receiving SSB and CW Transmissions

(not applicable for the Saudi Arabian model)

You can receive SSB (Single Side Band) and CW (Continuous Wave) transmissions with the built-in BFO circuit.



Tip

For more details on SSB and CW, refer to "Tips on radio waves" on page 47.

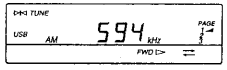
1 Turn on the radio.

2 Press FM/AM to select AM.

3 Press SSB to select USB or LSB/CW.

Each time SSB is pressed, the display changes in the following order:

(Normal mode) → USB → LSB/CW.



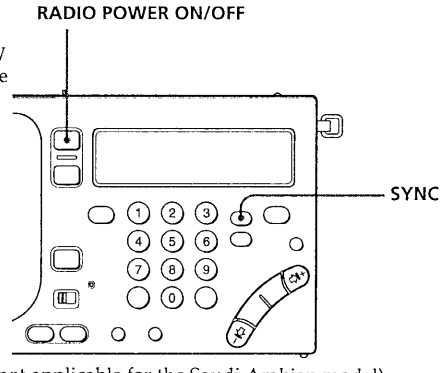
4 Tune in to the desired broadcast station.

Refer to pages 8 and 14–18.

Receiving optimum AM broadcast

—Synchronous detection

You can receive AM broadcast (especially SW broadcast) under optimum condition with the synchronous detection circuit.



(not applicable for the Saudi Arabian model)

Tip

For more details on synchronous detection, refer to "Tips on radio waves" on page 47.

Note

If neither SYNC U nor SYNC L improves AM reception, or if the reception deteriorates even further, press SYNC again (SYNC U or SYNC L for the Saudi Arabian model) to cancel the synchronous detection mode. "LOCK" in the display disappears.

1 Turn on the radio.

2 Tune in to the desired broadcast station.

Refer to pages 8 and 14–18.

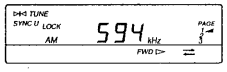
3 Press SYNC to select SYNC U or SYNC L to obtain optimum AM reception.

(not applicable for the Saudi Arabian model)

Each time SYNC is pressed, the display changes in the following order:

(Normal mode) → SYNC U → SYNC L.

"LOCK" appears in the display when the synchronous detection mode is operating.



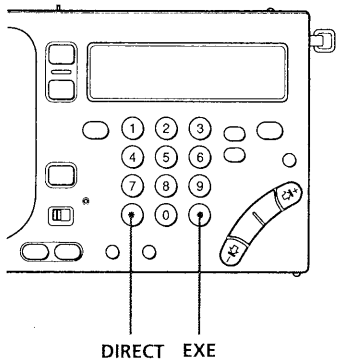
For the Saudi Arabian model, press SYNC U or SYNC L to obtain optimum AM reception.

Changing the MW channel step for use in foreign countries

The MW channel step of this unit is factory-set to 9 kHz. The channel step differs depending on the area to match the frequency allocation system of the country. Change the MW channel step as necessary.

10 kHz

Japan, Europe, and other countries:
9 kHz

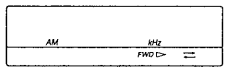


Notes

- When you have entered the wrong MW channel step in step 3, press DIRECT to cancel the current entry and enter the correct value.
- "TRY AGAIN!" flashes when the MW channel step entered is invalid (i.e., not 9 or 1 and 0). Repeat from step 2 again.
- Complete each button operation in steps 2 to 4 within 10 seconds. If the clock display returns, repeat from step 2 again.

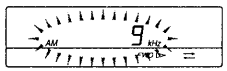
1 Turn off the radio.

2 Press DIRECT.



3 Press the numeric buttons (1, 9 and 0) to enter the desired MW channel step (9 or 1 and 0).

4 Press EXE.



The MW channel step flashes for about 3 seconds and then the clock display returns.

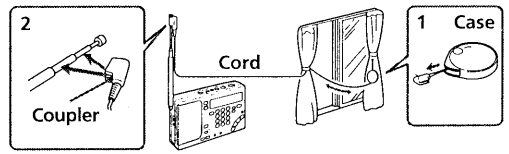
Connecting an external antenna for optimum reception

Tips

- When extending the cord and case of the supplied SW compact antenna outside the window, make sure that doing so will not pose any threat or danger to you and others. In addition, make sure to secure firmly so as not to drop the SW compact antenna.
- After using the SW compact antenna, turn the reel in the direction of the arrow to wind up the cord.

Using the supplied SW compact antenna

Under normal conditions, the telescopic antenna is sufficient for optimal SW reception. However, the use of the supplied SW compact antenna is recommended if the reception is poor when listening to the radio inside a building due to concrete and metal obstructions.



1 Fully pull out the cord from the case.

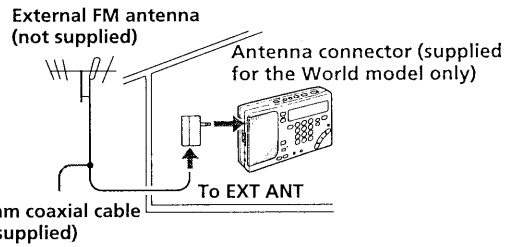
2 Attach the coupler to the telescopic antenna.

3 If the window can be opened, gently extend the cord with the case outside the window after making sure that doing so will not pose any danger.

If the window cannot be opened, fully extend the cord along the frame of the window.

Using an external FM antenna (not supplied)

FM reception may be poor and unsatisfactory with the telescopic antenna when the FM signal is notably weak, ignition noise from passing automobiles is severe, or signal interference is prevalent at high-rise building environments. In this case, connect a commercially available external FM antenna with a 75-ohm coaxial cable.

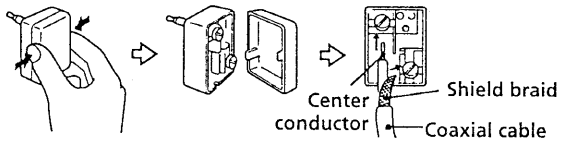


Notes

- Connect the recommended antennas only to the EXT ANT jack of the unit. The EXT ANT jack supplies a 3 V DC power output to the recommended antennas. Failure to use the recommended antennas where applicable may lead to the malfunction of the unit.
- Keep the unit and antenna away from fluorescent lights, televisions, and computers which may generate noise.
- When receiving MW or LW broadcasts without using the external MW/LW antenna, make sure to disconnect the SW external antenna where applicable. If not, the built-in ferrite bar antenna will not operate and MW/LW broadcast will not be received successfully.
- Retract the telescopic antenna when using an external antenna.
- Set up the external antenna as far away from the street as possible.
- For more details on the external antenna, refer to its Operating Instructions manual.

Using the antenna connector (supplied for the World model only)

1 Connect an optional coaxial cable to the supplied antenna connector.



2 Connect the antenna connector to the EXT ANT jack of the unit.

Using the wide range antenna (not supplied)

Use the wide range antenna AN-1 or AN-102 (not supplied) to improve SW, MW and LW receptions as necessary. Wide range antenna usage will differ for SW and MW/LW receptions as described below.

For SW reception

Use the connection cord supplied with the AN-1 or AN-102 to connect between the OUTPUT jack of the antenna controller and the EXT ANT jack of this unit.

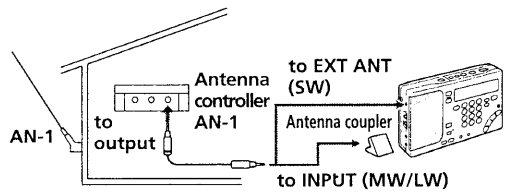
For MW/LW reception

1 Use the connection cord and antenna coupler supplied with the AN-1 or AN-102 to connect between the OUTPUT jack of the antenna controller and the INPUT jack of the antenna coupler.

2 Position the antenna coupler near the unit where MW/LW reception is optimal.

Retract the telescopic antenna.

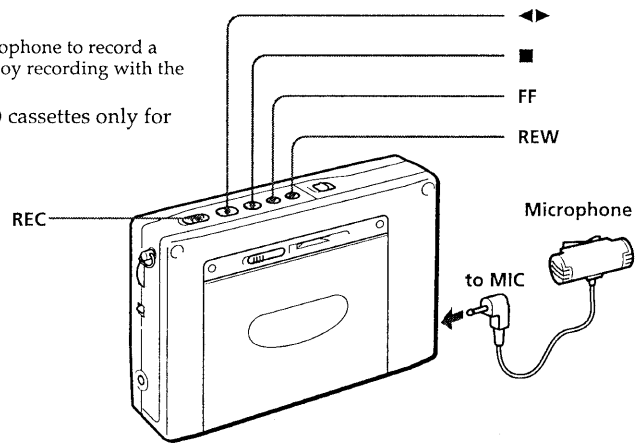
When AN-1 is used.



Recording with a microphone

Use the supplied microphone to record a meeting, or simply enjoy recording with the microphone.

Use Type I (normal) cassettes only for recording.



Notes

- If acoustic feedback (howling) occurs, turn down the volume or move the microphone away from the headphones.
- Keep the microphone away from fluorescent lights and electrical cords which may generate noise while recording.

Tip

There is no speaker output when recording with the microphone. To monitor the sound being recorded, plug the stereo headphones.

1 Insert a cassette.

Insert the cassette with the side you wish to record facing the cassette holder.

Before inserting a cassette, make sure that the cassette tab is not broken off.

A cassette with a broken tab cannot be recorded.

2 Select whether you wish to record one side or both sides of the cassette.

To record one side ⇉: Press FF while pressing ■.

To record both sides ⇄: Press REW while pressing ■.

3 Make sure that the cassette is inserted with the side you wish to record facing the cassette holder.

Press ◄► while pressing ■ to display "FWD ▷".

4 Connect the supplied microphone to the MIC jack of the unit.

5 Start recording.

To stop recording

Press ■.

To record the side facing the unit (reverse side)

Insert the cassette with the side you wish to record facing the unit (reverse side). Press ◄► while pressing ■ to display "◁ REV".

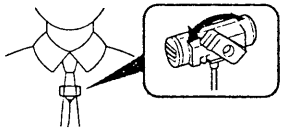
Recording stops on the side facing the unit regardless of whether one side or both sides is selected.

Tips

- When the supplied microphone is connected, power is supplied from the unit.
  The supplied microphone is a plug-in-power type and should be connected to MIC jacks of cassette recorders that are compatible with the plug-in-power type only.
- To prevent accidental operations of the buttons, use the hold function (see page 32).

Using the supplied microphone

The clip of the supplied microphone can be swiveled in the desired direction and fastened for your convenience.



Notes on recording

Recording level

The recording level is fixed. Adjusting VOLUME and TONE does not affect the sound to be recorded.

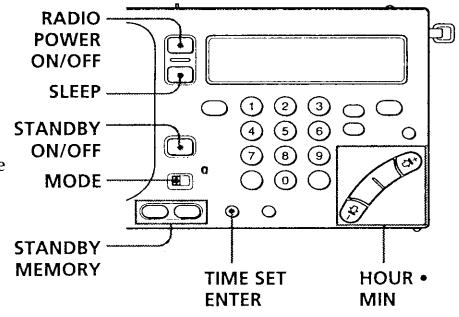
Recording with the supplied microphone

- Before inserting a cassette, make sure that the cassette tab is not broken off. A cassette with a broken tab cannot be recorded to prevent accidental recording of your important cassette. If you wish to use the cassette for recording again, cover the opening of the broken tab with adhesive tape.
- Operate REC approximately 2 seconds prior to the point you wish to begin recording. If not, the leading segment may not be recorded.
- Switching the recording side is not possible when ◄► is pressed during recording.

To wake up to the desired broadcast

—Standby function

The standby function enables you to turn on the radio and tune in to your favorite broadcast station at the desired time. The standby function features a dual alarm so that you can enter two different preset times. Before using the standby function, make sure that the clock is set correctly (see page 7).



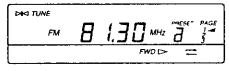
Note

Make sure that the radio is turned off before setting the desired standby time. You cannot set the standby time when the radio or cassette is operating.

1 Tune in to the desired broadcast station you wish to preset.

2 Adjust VOLUME as necessary.

3 Press **a** or **b** of STANDBY MEMORY while pressing ENTER.



The broadcast station is assigned to the selected button.

4 Turn off the radio.

5 Press HOUR or MIN repeatedly while pressing either **a** or **b** of STANDBY MEMORY (which you pressed in step 3) to set the desired standby time for the radio to turn on.

Display the desired standby time for the radio to turn on.

Tip

To temporarily cancel the standby function, slide HOLD in the direction of the arrow to display "O-n" while the radio is turned off. When "O-n" in the display disappears, the standby function is operational (see page 32).

Notes

- When you set STANDBY a and STANDBY b, and the preset standby time arrives while the other standby function is operating, the most recent standby function will have priority over the other and receive the appropriate broadcast.
- Once you preset the desired standby time, the radio turns on at the preset time everyday.
- When the preset standby time arrives while the radio or cassette is operated, the standby function will have priority over the current operation and receive the appropriate broadcast automatically.
  If you set STANDBY a and STANDBY b to an identical preset time, only STANDBY a operates.

6 Press SLEEP repeatedly while pressing either a or b of STANDBY MEMORY (which you pressed in step 3) to set the desired duration for the operation of the radio.

Each time SLEEP is pressed, the display changes in the following order:
60 (minutes) → 50 → 40 → 30 → 20 → 10 → 90 → 80 → 70

Display the desired duration for the operation of the radio.

The clock display returns when a or b is released.

7 Press STANDBY ON/OFF repeatedly to display "STANDBY a" or "STANDBY b" (which you selected in step 3).

Each time STANDBY ON/OFF is pressed, the display changes in the following order:

STANDBY a → STANDBY b → STANDBY a b → (None)

8 Set MODE to RADIO.

When the preset standby time arrives, the preset broadcast station is received. After the preset duration for the operation of the radio has elapsed, the radio turns off.

To check the preset standby time

Press a or b of STANDBY MEMORY. The preset standby time and preset duration for the operation of the radio are displayed while the button is pressed.

To change the preset standby time

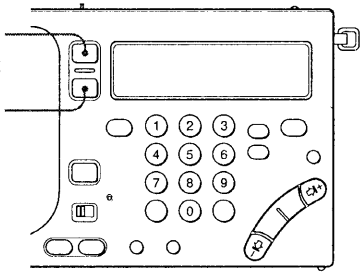
Repeat steps 5 through 7 to change the existing preset standby time.

To cancel the standby function

Press STANDBY ON/OFF repeatedly so that "STANDBY" in the display disappears.

To fall asleep while listening to the desired broadcast—Sleep timer

You can turn off the radio automatically after a specified number of minutes (10–90 minutes) with the sleep timer function.



Tip

The previously tuned broadcast station is received when SLEEP is pressed to turn on the radio.

Note

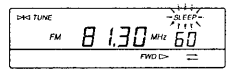
Repeat from step 1 again if the sleep timer begins before you have set the desired duration. The sleep timer begins automatically after about 5 seconds when SLEEP is released.

Note

When the sleep timer is activated while recording the radio, the recording will stop and the power will turn off.

1 Press SLEEP.

The radio turns on. "SLEEP" flashes and the duration for the operation of the sleep timer (60 minutes) appears in the display.



2 Press SLEEP repeatedly to display the desired duration for the operation of the sleep timer.

Each time SLEEP is pressed, the display changes in the following order:
60 (minutes) → 50 → 40 → 30 → 20 → 10 → 90 → 80 → 70

Sleep timer begins after "SLEEP" stops flashing and remains in the display, and the duration for the operation of the sleep timer disappears.

3 Tune in to the desired broadcast station.

The radio turns off automatically after the selected duration for the operation of the sleep timer elapses.

To change the preset duration for the operation of the sleep timer

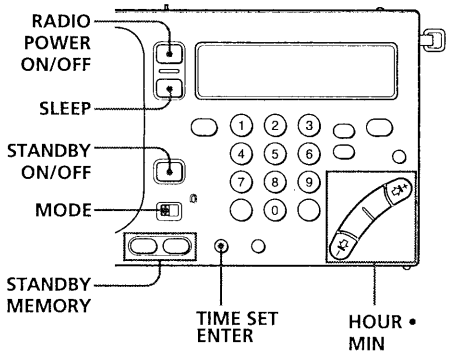
Press SLEEP repeatedly to display the desired duration for the operation of the sleep timer.

To turn off the radio before the preset duration has elapsed

Press RADIO POWER ON/OFF.

To record the desired broadcast with the timer—Timer recording

The timer recording function enables you to turn on the radio and tune in to your favorite broadcast station at the desired time for recording. Use the timer recording function when you wish to record a broadcast while away or unattended. Before using the timer recording function, make sure that the clock is set correctly (see page 7).



Note

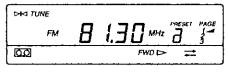
Make sure that the radio is turned off before setting the desired standby time. You cannot set the standby time when the radio or cassette is operating.

1 Insert a cassette.

Insert the cassette with the side you wish to record facing the cassette holder.

2 Tune in to the desired broadcast station you wish to record and adjust VOLUME.

3 Press **a** or **b** of STANDBY MEMORY while pressing ENTER.



The broadcast station is assigned to the selected button.

4 Turn off the radio.

5 Press HOUR or MIN repeatedly while pressing either **a** or **b** of STANDBY MEMORY (which you pressed in step 3) to set the desired standby time for the radio to turn on for recording.

Display the desired standby time for the radio to turn on for recording.

Tip

To temporarily cancel the standby function, slide HOLD in the direction of the arrow to display "⊶" while the radio is turned off. When "⊶" in the display disappears, the standby function is operational (see page 32).

Notes

- When you set STANDBY **a** and STANDBY **b**, and the preset standby time arrives while the other standby function (timer recording) is operating, the most recent standby function will have priority over the other and record the appropriate broadcast.
- Once you preset the desired standby time, the radio operates at the preset time everyday.
- When the preset standby time arrives while the radio or cassette is operated, the standby function will have priority over the current operation and record the appropriate broadcast automatically.
- If you set STANDBY **a** and STANDBY **b** to an identical preset time, only STANDBY **a** operates.
- When a cassette is not inserted, or the tab of the cassette is broken, recording is not possible. Instead, the radio will receive the appropriate broadcast.

6 Press SLEEP repeatedly while pressing either **a** or **b** of STANDBY MEMORY (which you pressed in step 3) to set the desired duration for the operation of the radio.

Each time SLEEP is pressed, the display changes in the following order:

60 (minutes) → 50 → 40 → 30 → 20 → 10 → 90 → 80 → 70

Display the desired duration for the operation of the radio.

The clock display returns when **a** or **b** is released.

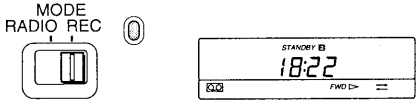
7 Press STANDBY ON/OFF repeatedly to display "STANDBY **a**" or "STANDBY **b**" (which you selected in step 3).

Each time STANDBY ON/OFF is pressed, the display changes in the following order:

STANDBY **a** → STANDBY **b** → STANDBY **a** **b** → (None)

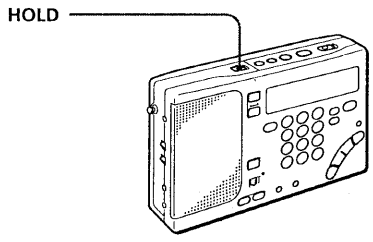
8 Set MODE to REC.

The indicator beside the switch turns red.



When the preset standby time arrives, the preset broadcast station is received and recorded. After the preset duration for the operation of the radio has elapsed, the radio and recording operation will turn off.

Using the hold function to prevent accidental operations



When the hold function is used, all buttons are locked and are not operational.
When carrying the unit or operating the radio or cassette, use the hold function to prevent accidental operations.
In addition, use the hold function to temporarily cancel the standby function (see pages 28 and 31).

Tip

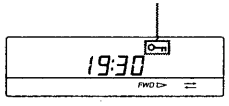
When the hold function is used, the illumination of the display is turned off.

Note

The hold function cannot be used to hold cue and review operations.

Slide HOLD in the direction of the arrow to display "o-n". All buttons are locked and are not operational when "o-n" is displayed.

Display "o-n"



To cancel the hold function

Slide HOLD in the opposite direction of the arrow so that "o-n" disappears in the display.

To temporarily cancel the standby and timer recording functions

When the hold functions is used, the standby and timer recording functions are temporarily canceled.

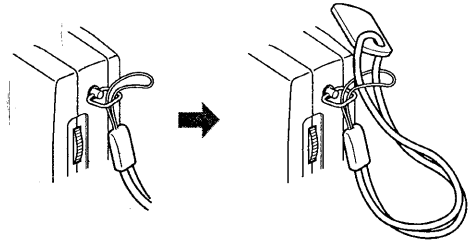
This is applicable when the radio is not operating only.

Attaching the strap

Attach the supplied strap to facilitate handling of the unit. In addition, you can use the strap as a stand.

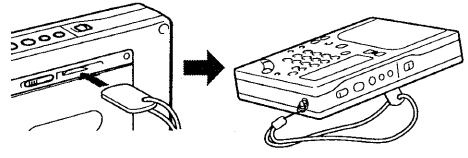
To attach

Attach the strap to the fixture on the side of the unit as shown.

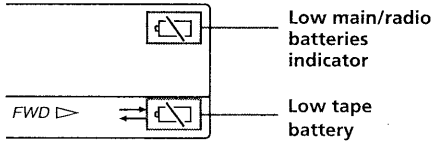


Using the stand

Insert the tab of the strap into the slot on the rear side of the unit as shown.



Replacing the batteries



Notes

- Replace the batteries within 3 minutes after the batteries are removed from the holders.
  Otherwise, the preset broadcast stations and clock settings will be erased. In this case, preset the broadcast stations and set the time again.
- "" will disappear in the display when the radio or tape is operated after the batteries are replace.

Main/radio batteries

Radio or tape stops operating, and "" will flash in the display when the main/radio batteries require replacement. Replace with two new R6 (size AA) batteries.

When the batteries are completely exhausted, "" stops flashing and remains in the display. All operations will not be possible.

Tape battery

The tape battery supplies the necessary power to drive the motor for tape operation. Sound quality will deteriorate, tape operation will become unstable, and "" will flash in the display when the tape battery requires replacement. Replace with a new R6 (size AA) battery.

When the battery is completely exhausted, "" stops flashing and remains in the display. All operations will not be possible.

Battery Life (Approximate hours)

		Sony R6 alkaline (size AA)		Sony R6 (size AA)	
		Radio batteries	Tape battery	Radio batteries	Tape battery
Tape Playback		approx. 37	approx. 11	approx. 14	approx. 3.5
Radio	FM	approx. 27	—	approx. 9	—
Play	AM	approx. 21	—	approx. 7	—
MIC recording		approx. 36	approx. 11	approx. 13	approx. 3.5
Radio	FM	approx. 18	approx. 11	approx. 6.5	approx. 3.5
Recording	AM	approx. 15	approx. 11	approx. 5	approx. 3.5

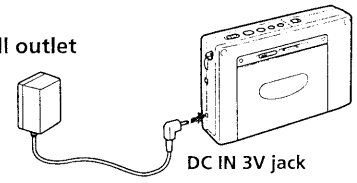
Operating with house current or car battery

Note

When the AC power adaptor or the car battery cord is connected to the DC IN 3V jack of the unit, the internal batteries are automatically disconnected. Power is automatically supplied from the external power source.

House current

To operate the unit with house current, connect the optional AC power adaptor AC-E30HG to the DC IN 3V jack of the unit.



Notes on the AC power adaptor

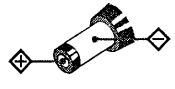
- Do not bend or twist the power cord unnecessarily and do not place heavy objects on the power cord.
- When disconnecting the AC power adaptor from the wall outlet, pull out by the plug. Do not pull the power cord.
- Disconnect the AC power adaptor from the wall outlet when the unit is not to be used for a long period of time. Make sure to pull out by the plug.

Car battery

To operate the unit with car battery, connect a car battery cord to the DC IN 3V jack of the unit.
For more details on the car battery cord, refer to its Operating Instructions manual.

Notes on external power sources

- When operating the unit with an external power source, do not remove the batteries in the RADIO BATT battery holder which serve as a backup of the memory. Replace the batteries regularly once a year.
- When operating the unit with the internal batteries, remove the AC power adaptor or car battery cord in the following order: ① disconnect from the wall outlet or car battery, and ② disconnect from the DC IN 3V jack of the unit.
  Make sure that the plug of the external power source is disconnected before operating the unit.
- Use the recommended Sony AC power adaptor or car battery cord only. The polarity of the plugs of other manufacturers may be different. Failure to use the recommended AC power adaptor or car battery cord may lead to the malfunction of the unit.

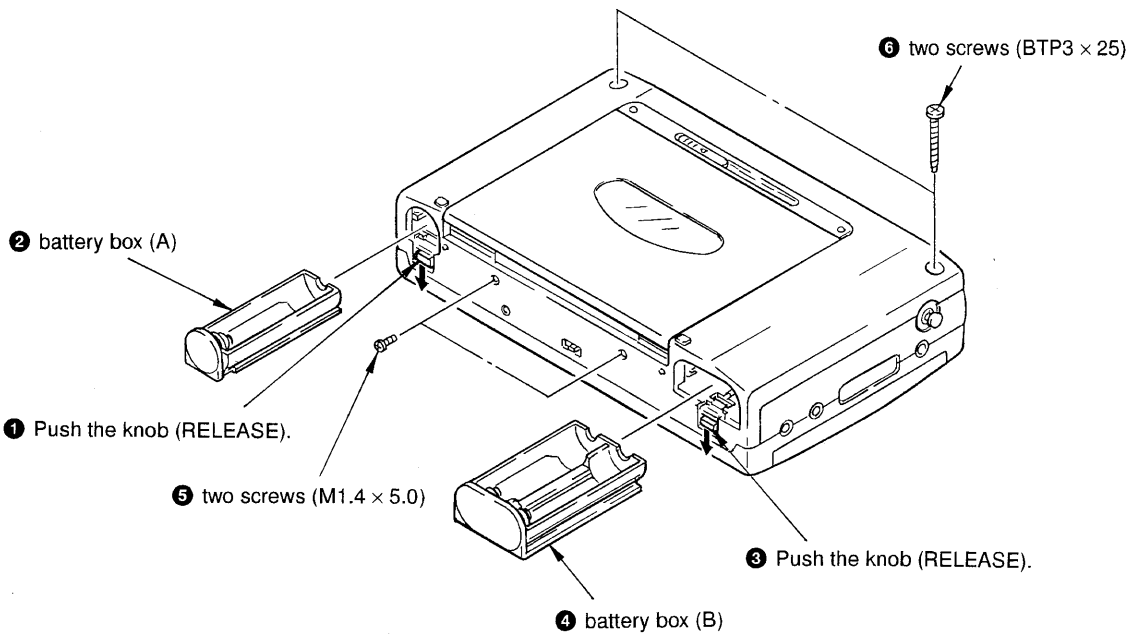


Polarity of the plug

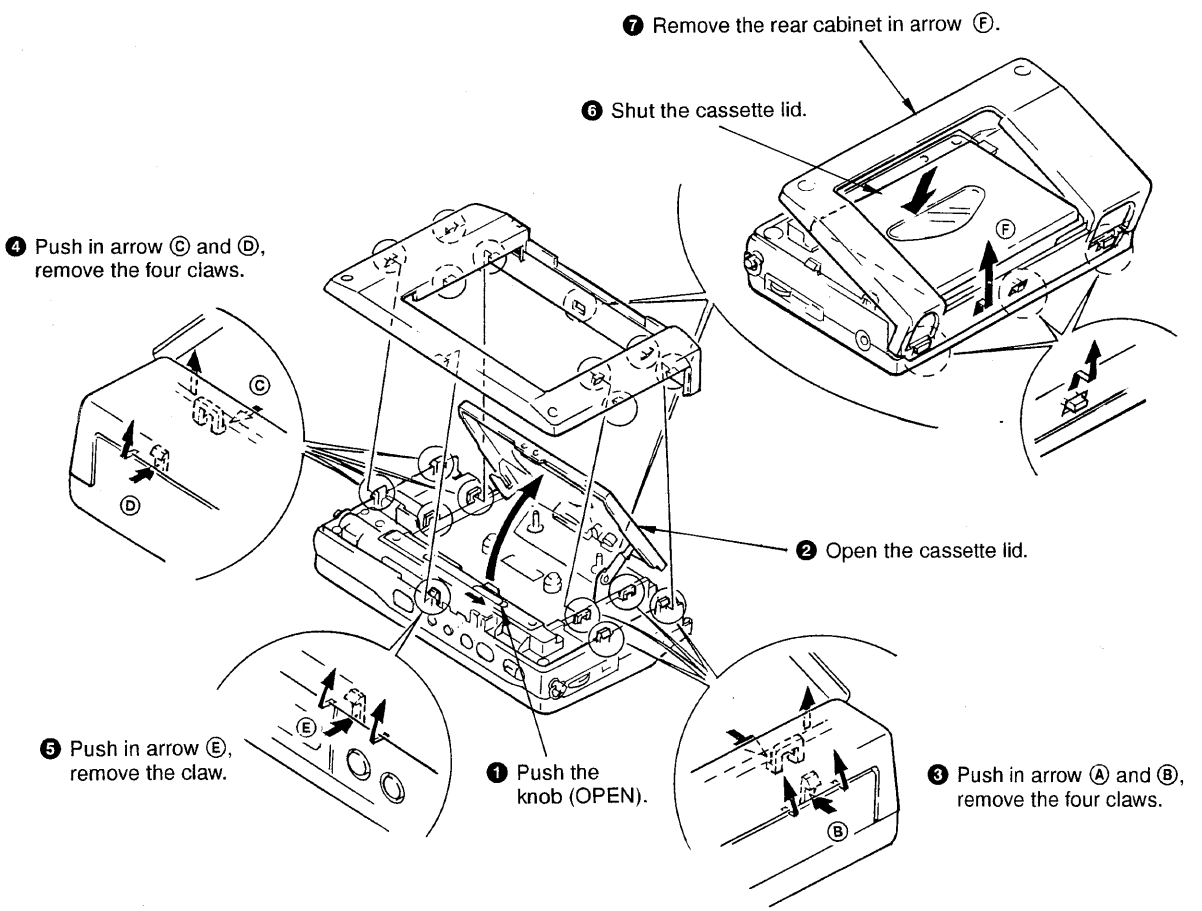
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

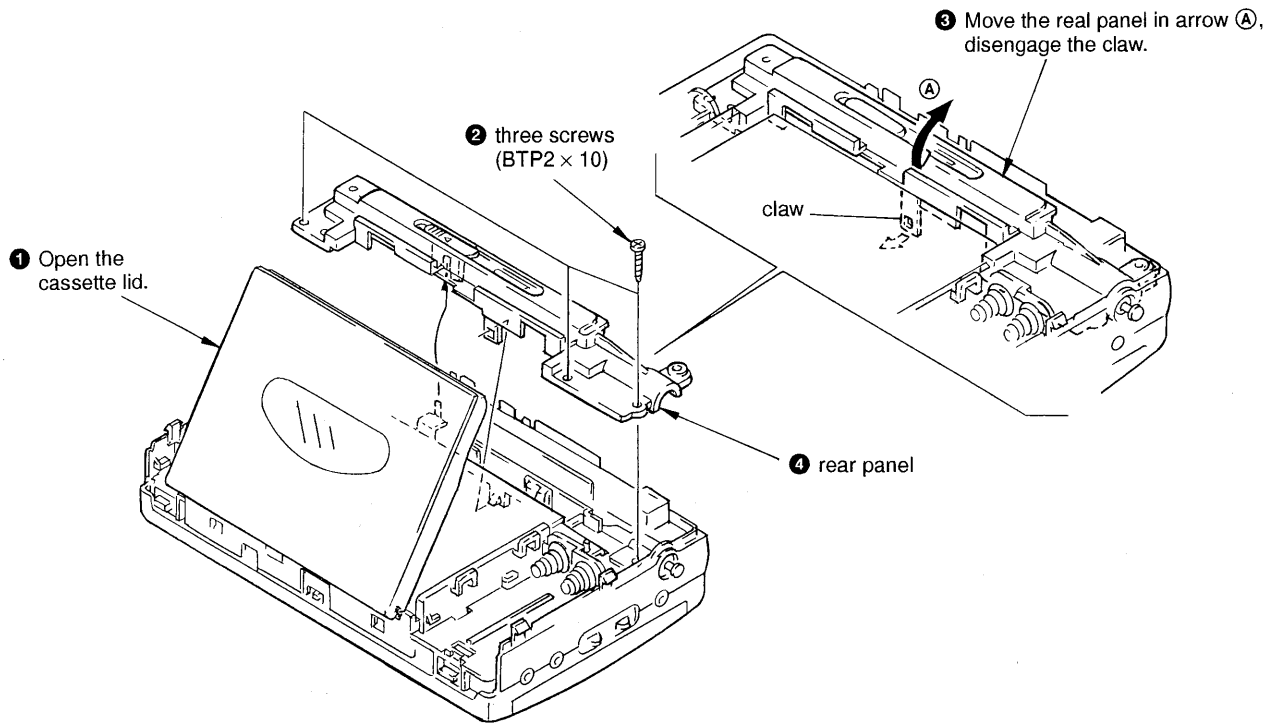
BATTERY BOX



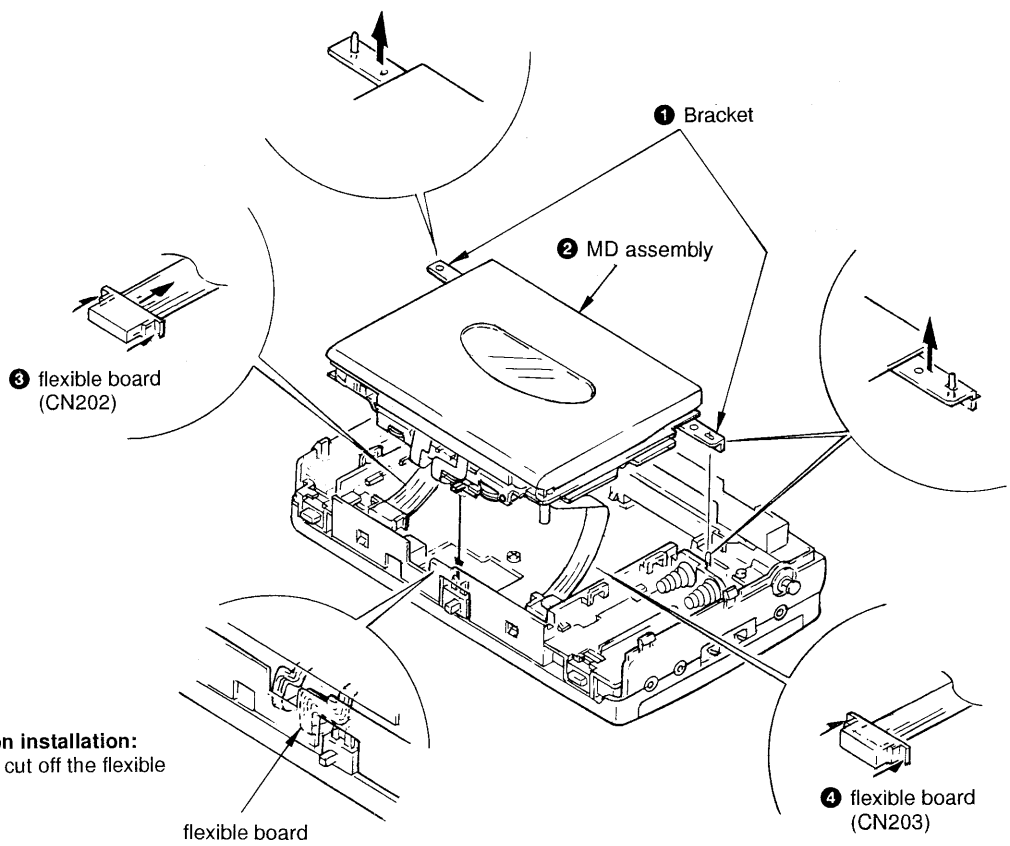
REAR CABINET


❼ Remove the rear cabinet in arrow Ⓕ.
❻ Shut the cassette lid.
❹ Push in arrow Ⓒ and Ⓓ, remove the four claws.
❷ Open the cassette lid.
❺ Push in arrow Ⓔ, remove the claw.
❶ Push the knob (OPEN).
❸ Push in arrow Ⓐ and Ⓑ, remove the four claws.

REAR PANEL

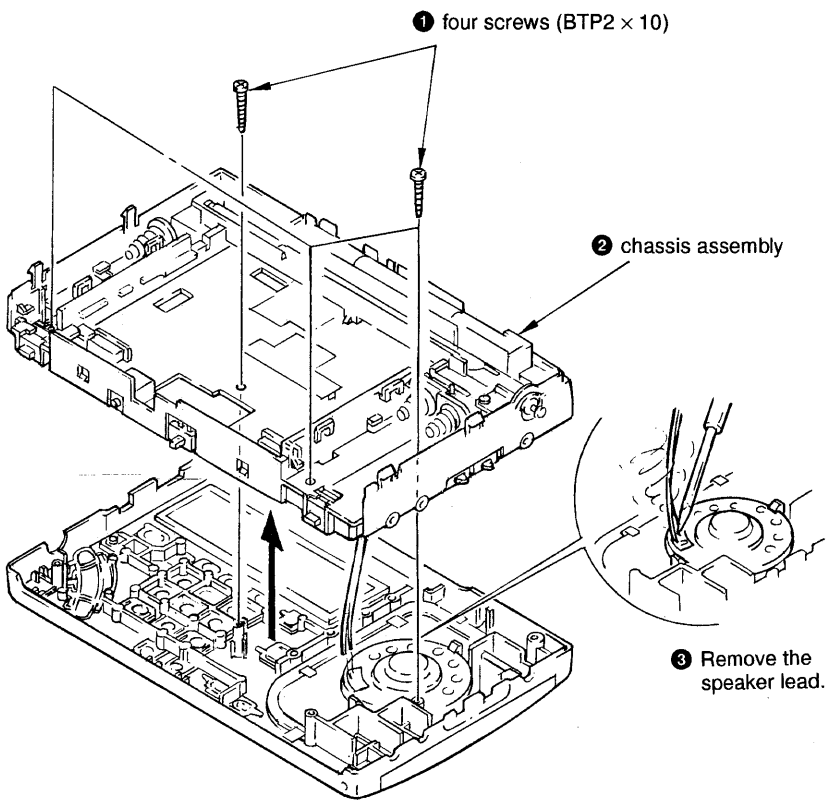


MD ASSEMBLY



Note on installation:
Do not cut off the flexible board.

CHASSIS ASSEMBLY



SECTION 4
MECHANICAL ADJUSTMENT

PRECAUTION

1. Clean the follwing parts with a denatured-alcohol-moistended swab:
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagentizer. (Do not bring the head demagnetize close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage (1.3 V) unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	21–38 g•cm (0.29–0.53 oz•inch)
FWD Back Tension		0.5–3 g•cm (0.01–0.04 oz•inch)
REV	CQ102RC	21–38 g•cm (0.29–0.53 oz•inch)
REV Back Tension		0.5–3 g•cm (0.01–0.04 oz•inch)
FF	CQ201B	more than 60 g•cm (more than 0.84 oz•inch)
REW		

Tape tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 40 g•cm (more than 1.4 oz)
REV	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION

PRECAUTION

1. Perform adjustment under the following condition, unless otherwise specified.
   • Positions of switches and control knobs
   VOLUME knob ..... mechanical center
   SENS switch ..... HIGH

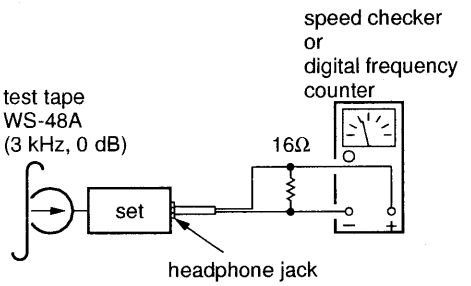
• Test tape

Type	Signal	Used for
WS-48A	3 kHz, 0dB	tape speed adjustment

Tape Speed Adjustment

Procedure:

Mode : FWD playback

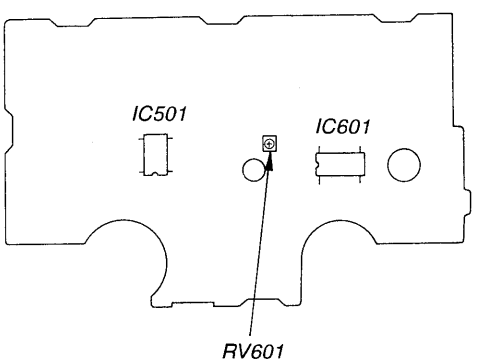


Adjustment Value:

Speed checker	Digital frequency counter
3,000 Hz ± 0.5 %	2,985 – 3,015 Hz

Adjust the RV601 so that a difference in frequency at the start of tape winding and at the end of winding is within 0.5 % (15 Hz) respectively.
After adjustment, select the REV PLAY mode, and confirm that the characteristics satisfy the standard.

Adjustment Location: MD Board (Conductor Side)



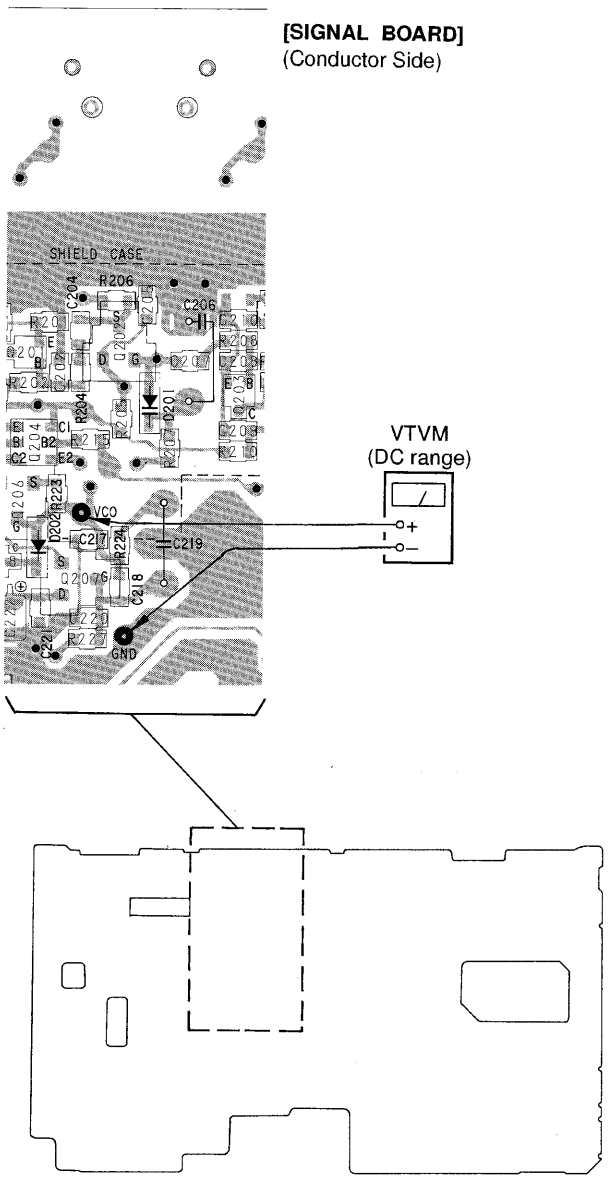
TUNER SECTION

See page 30 for the adjustment location.

VCO Voltage Adjustment

Setup :

BAND Selector: FM
VOLUME control: Arbitrary



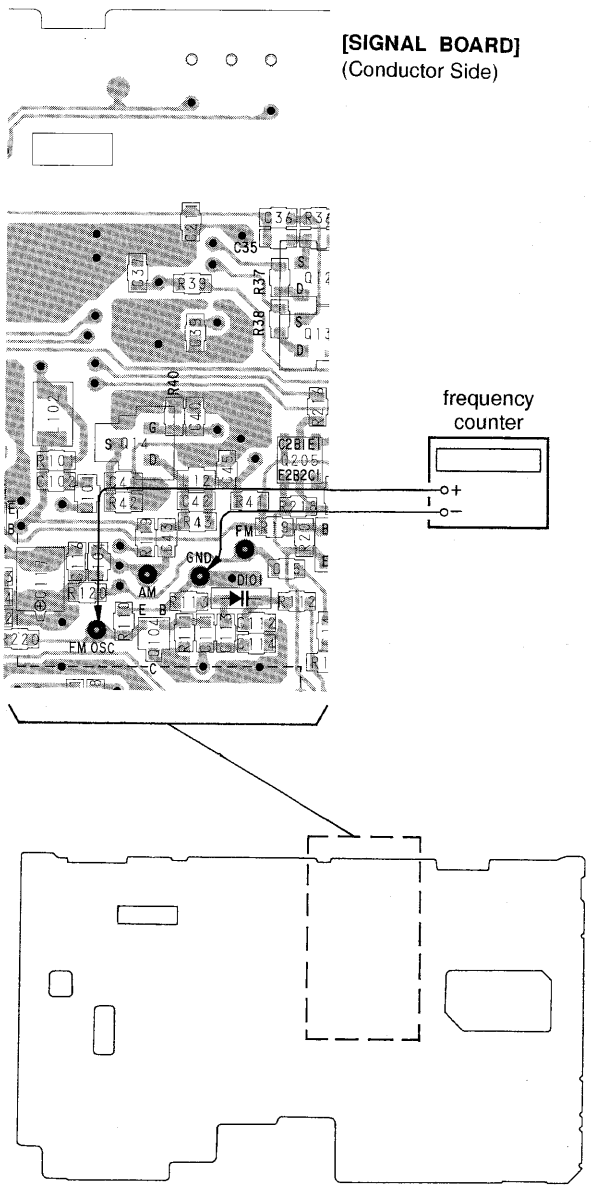
Procedure :

1. Tune the set to 76 MHz.
2. Adjust T101 to obtain a 1.55–1.65 V on the VTVM.
3. Tune the set to 108 MHz.
4. Make sure that the VTVM reading is below 11 V.

FM 100 MHz Adjustment

Setup:

BAND selector: FM
VOLUME control: Arbitrary



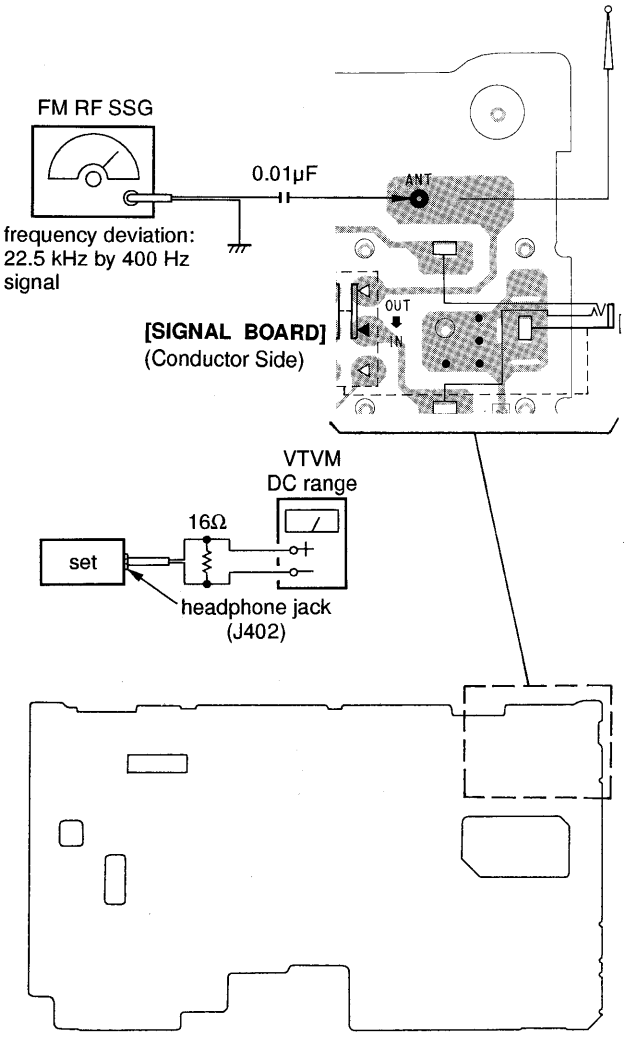
Procedure:

1. Tune the set to 89.3 MHz.
2. Adjust CT201 for 100 MHz ±30 Hz reading on the frequency counter.

FM TRACKING Adjustment

Note: This adjustment should be performed after the remove Rod-Antenna (ANT2).
This adjustment should be performed after the VCO VOLTAGE ADJUSTMENT.

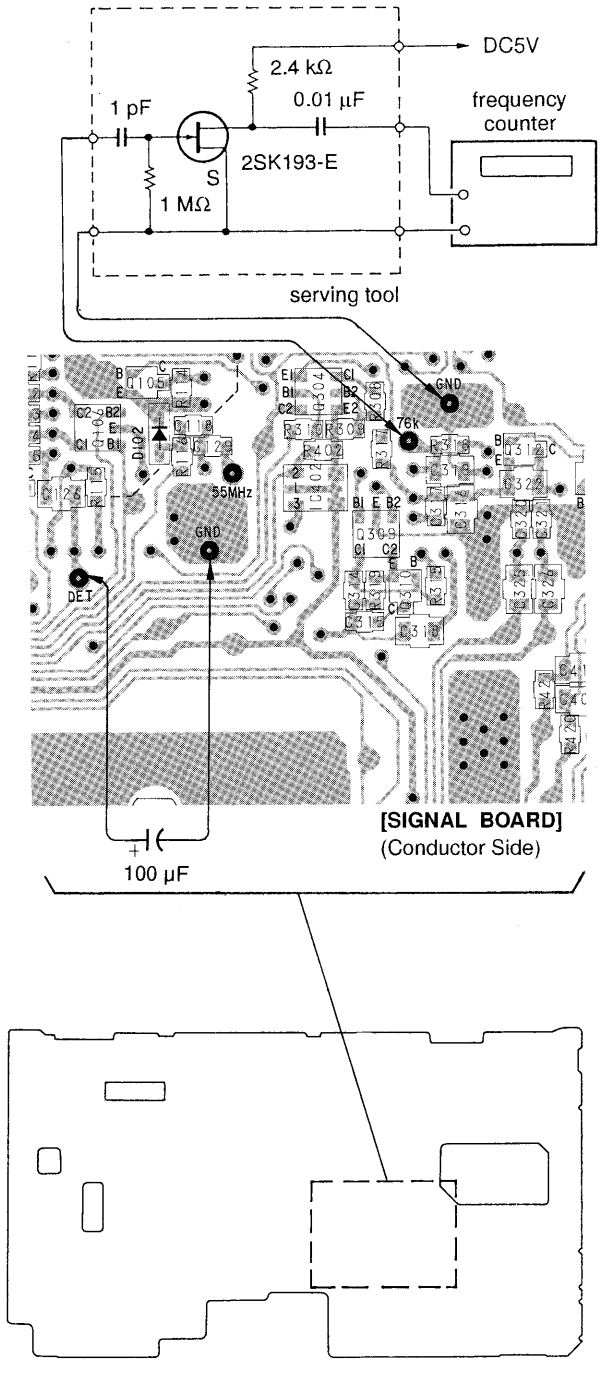
Setup:
BAND selector : FM
VOLUME control: Arbitrary



Procedure:
1. Set the frequencies of the FM RF SSG and the frequency display of the set to 76 MHz
2. Adjust T2 and T3 to obtain a maximum reading on the VTVM.
3. Set the frequencies of the FM RF SSG and the frequency display of the set to 108 MHz.
4. Adjust CT3 and CT4 to obtain a maximum reading on the VTVM.
5. Repeat the above steps several times, and finish the adjustment with the trimmers CT3 and CT4.

FM STEREO (76 kHz) Adjustment

Setup:
BAND selector: FM
VOLUME control: Arbitrary



Procedure:
1. Adjust RV301 to obtain a 75.9–76.1 kHz on the frequency counter.

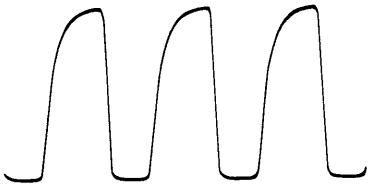
SD Adjustment

Setup:

BAND Selector: FM
VOLUME control: Arbitrary

Procedure:

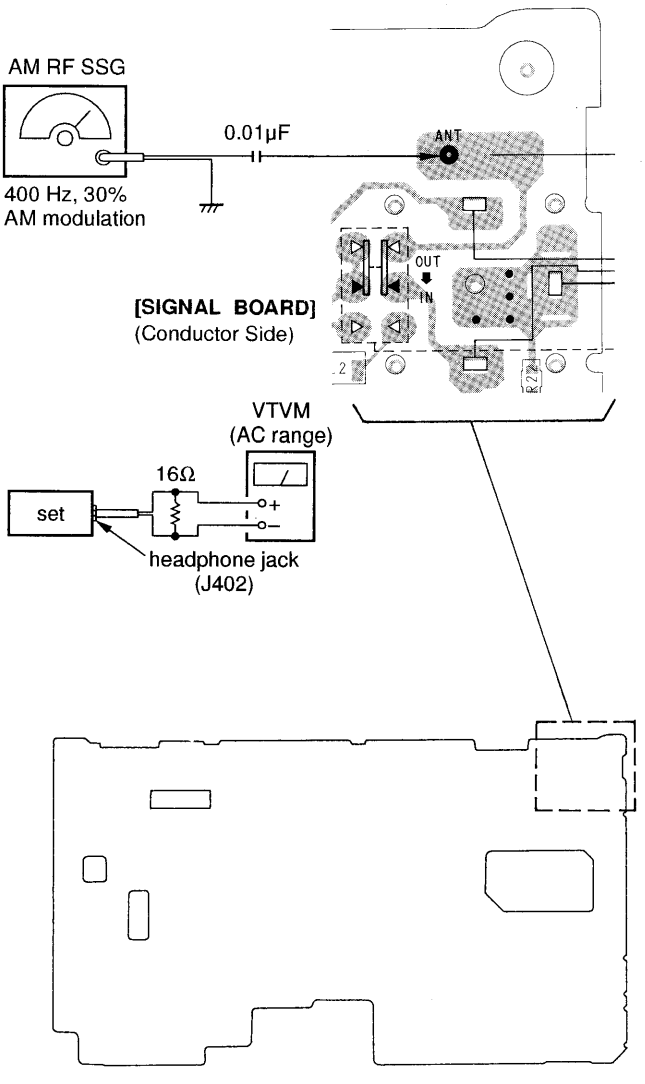
1. Tuner the set to 93 MHz.
   (FM RF SSG frequency is 93.025 MHz)
2. Adjust the RV102 so that a waveform on oscilloscope is as shown below.



1st IF Adjustment

Setup:

BAND Selector: AM
VOLUME contorl: arbitrary



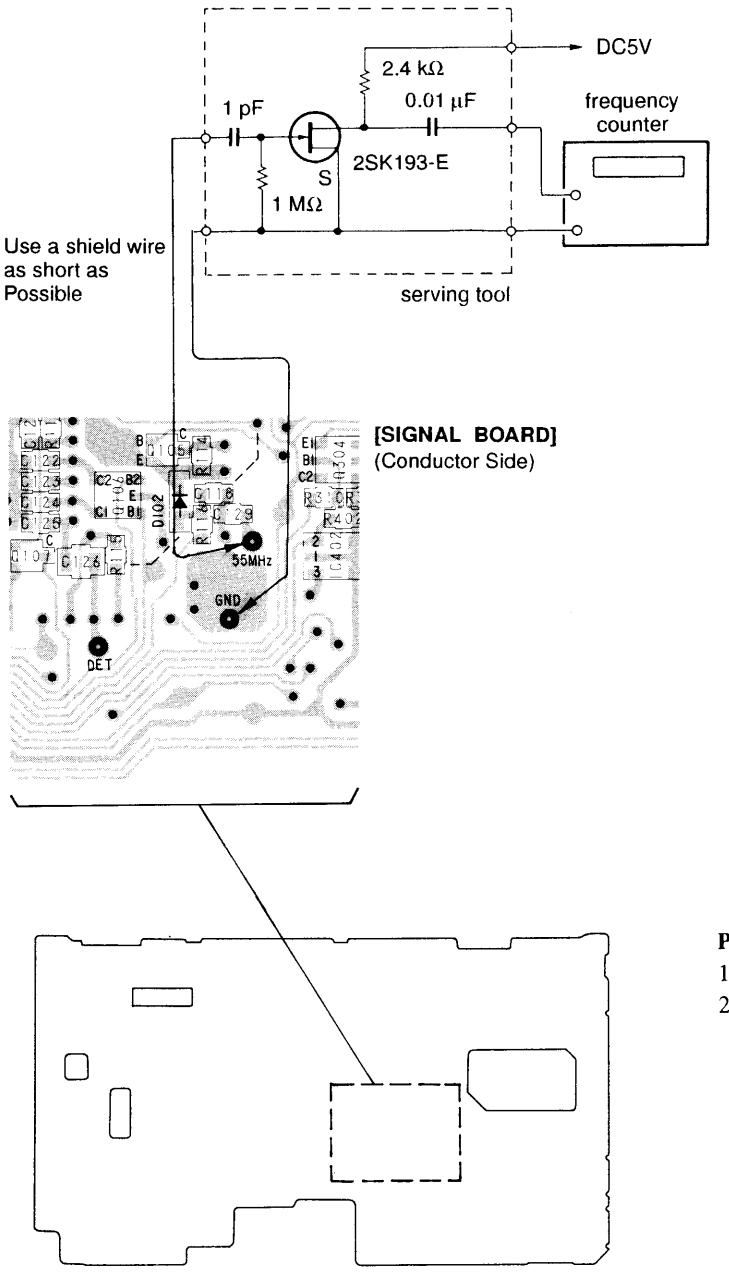
Procedure:

1. Set the frequencies of the AM RF SSG and the frequency display of the set to 150 kHz.
2. Adjust T5 and T6 to obtain a maximum reading on the VTVM.

2nd LOCAL Adjustment

Setup:

BAND Selector: AM
VOLUME control: Arbitrary



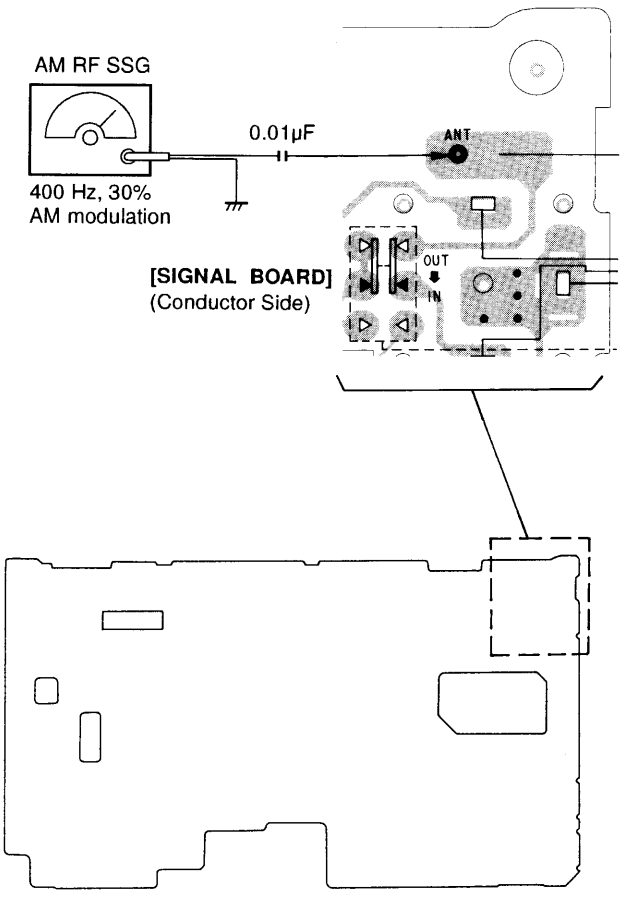
Procedure:

1. Tune the set to AM 150 kHz .
2. Press the [SSB] key, and confirm that [USB] is displayed.
3. Press the [–] key (outside).
4. Adjust T102 (pink) to obtain a 55.38997 –55.39003 MHz on the frequency counter.
5. Press the [] key (inside) only once. (Return to 2 if wrong)
6. Adjust T103 (Yellow) to obtain a 55.38907 –55.38913 MHz on the frequency counter.

SSB ZERO BEAT Adjustment

Setup:

BAND selector: AM
MODE: SSB (USB or LSB/CW)



Procedure:

1. Adjust the RV101 to attain zero beat (no beat sound heard).
2. Change the mode to the alternative band (LSB/CW if USB), and check if the zero beat is retained.
   If not, readjust.

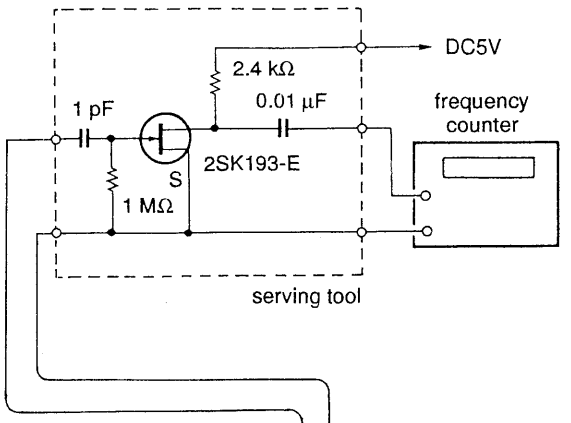
2 MHz clock Frequency Adjustment

Note: When X701 on Microcomputer board is replaced, it is necessary to adjust the clock frequency.

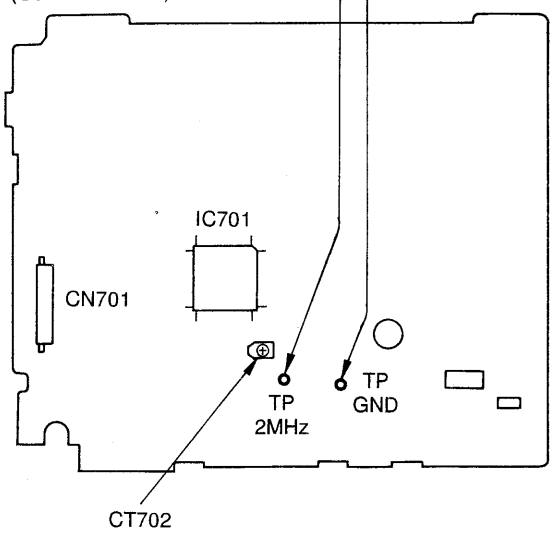
Setup:

BAND selector: AM

VOLUME control: Arbitrary



[MICROCOMPUTER BOARD]
(Conductor Side)

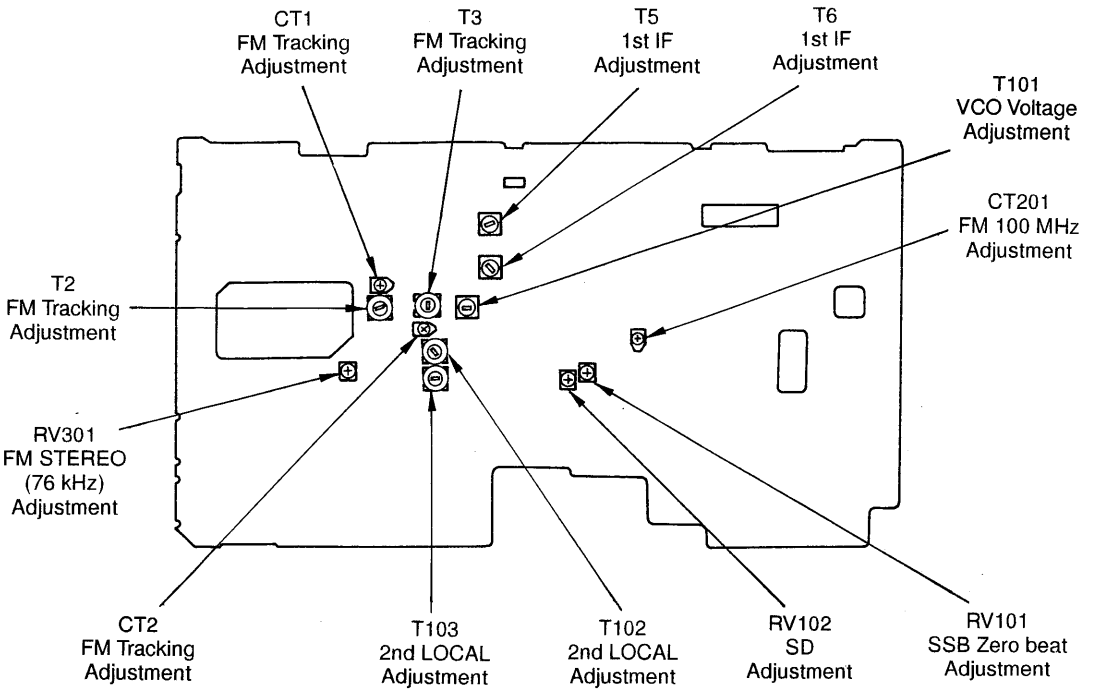


Procedure:

1. Tune the set to 150 kHz.
2. Adjust CT702 for 2.040 MHz ±1 kHz reading on the frequency counter.

• Parts Location Diagram Relevant to the Adjustment

[SIGNAL BOARD]
(Component Side)



SECTION 6
DIAGRAMS

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	D-24	Q103	E-21
D2	D-26	Q104	E-22
D3	D-24	Q105	E-23
D4	E-23	Q106	E-22
D5	D-28	Q107	F-22
D6	C-24	Q108	F-21
D7	C-24	Q201	C-19
D8	C-24	Q202	C-20
D9	C-24	Q203	D-20
D101	E-23	Q204	D-19
D102	F-23	Q205	D-19
D103	F-20	Q206	D-19
D201	D-20	Q207	E-19
D202	D-19	Q208	D-19
D301	D-10	Q301	D-11
D302	D-11	Q302	D-11
D303	F-5	Q303	E-18
D401	H-16	Q304	E-23
D402	H-16	Q305	G-5
D403	H-12	Q306	F-4
D404	H-16	Q307	G-5
		Q308	F-6
IC101	E-7	Q309	F-24
IC201	F-10	Q310	F-24
IC301	E-11	Q311	F-25
IC302	F-4	Q312	F-24
IC402	F-23	Q313	G-5
IC403	G-3	Q401	H-26
		Q402	H-25
Q1	C-26	Q403	G-26
Q2	C-25	Q404	G-27
Q3	C-25	Q405	H-26
Q4	C-26	Q406	H-26
Q5	D-24	Q407	H-25
Q6	D-24	Q408	H-11
Q7	E-24	Q409	H-11
Q8	D-23	Q410	H-11
Q9	C-26	Q411	F-3
Q10	C-25	Q412	H-25
Q11	D-24	Q413	F-25
Q12	C-23	Q414	G-25
Q13	C-23	Q415	G-25
Q14	D-22	Q416	H-25
Q101	D-22	Q417	H-26
Q102	E-21		

Note on Printed Wiring Board:

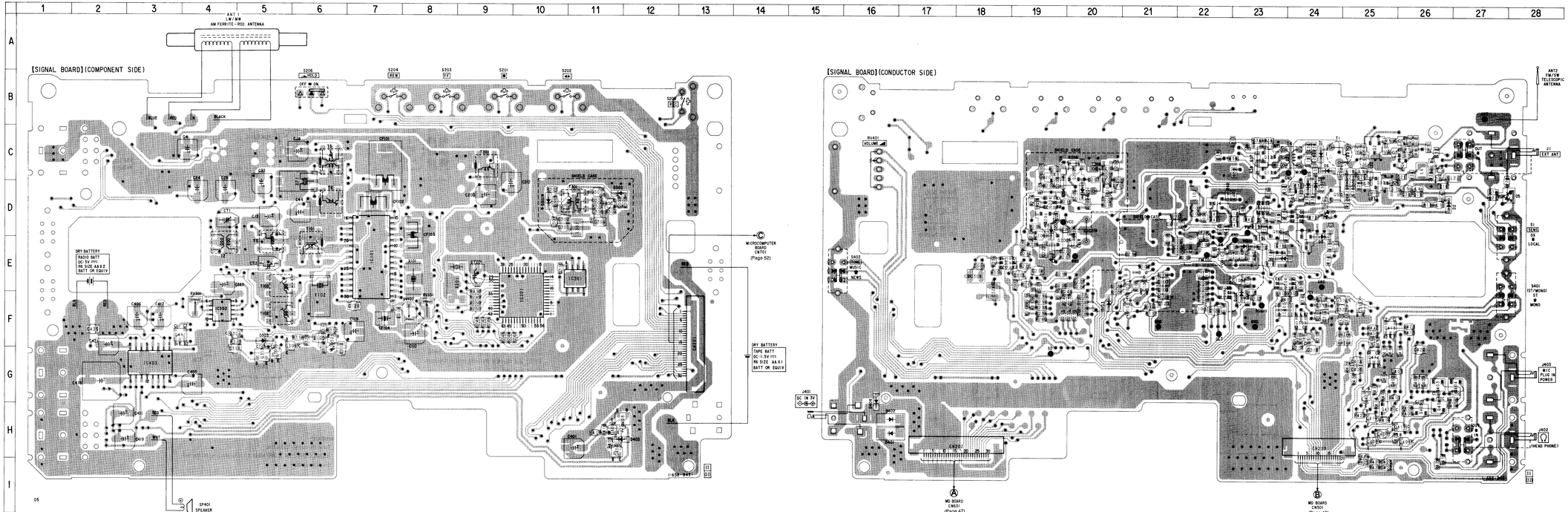
- ○——: parts extracted from the component side.
- ——○: parts extracted from the conductor side.
- ⊡: indicates side identified with part number.
- ●: Through hole.
- : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

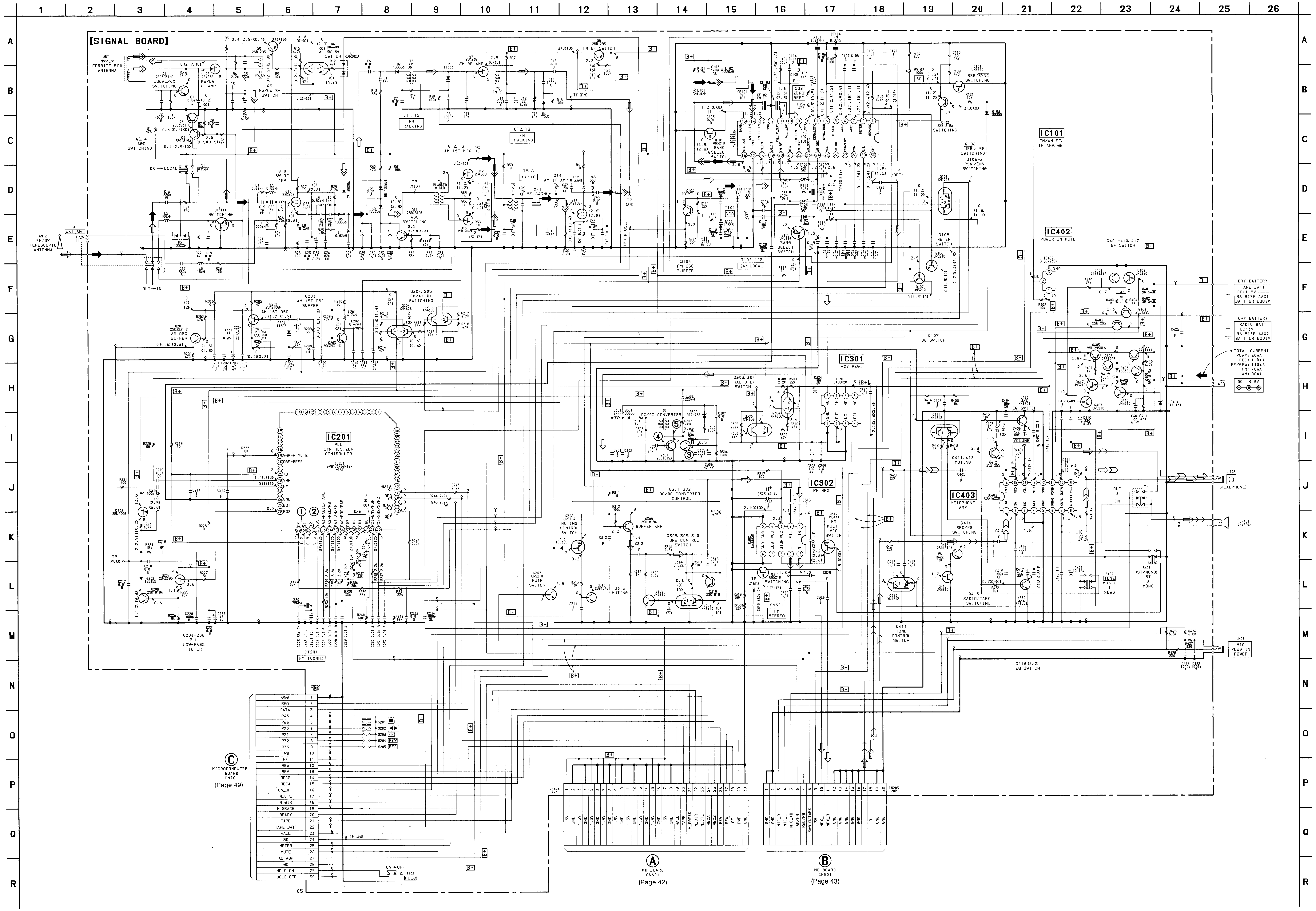
Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

6-1. PRINTED WIRING BOARD –TUNER Section–

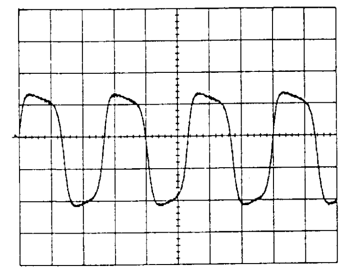

【SIGNAL BOARD】(COMPONENT SIDE)
【SIGNAL BOARD】(CONDUCTOR SIDE)
ANT1 LW/MW AM FERRITE-ROD ANTENNA
ANT2 FM/SW TELESCOPIC ANTENNA
EXT ANT
S206 HOLD
S204 REW
S203 FF
S201
S202
S205 OFF ON
VOLUME
S402 TUNING MUSIC NEWS
S1 TUNING CW LOCAL
S401 ST/MONO ST MONO
J403 MIC PLUG IN POWER
J450 PHONES
J401 DC IN 3V
DRY BATTERY RADIO BATT DC 3V ⎓ R6 SIZE AA X 2 BATT OR EQUIV
DRY BATTERY TAPE BATT DC 1.5V ⎓ R6 SIZE AA X 1 BATT OR EQUIV
SHIELD CASE
SP601 SPEAKER
MICROCOMPUTER BLOCK (Page 52)
MB BOARD CN501 (Page 47)
MD BOARD CN501 (Page 46)

6-2. SCHEMATIC DIAGRAM –TUNER Section–

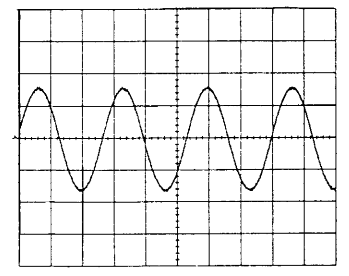

[SIGNAL BOARD]
IC101
FM/AM FE, IF AMP, DET
IC201
PLL SYNTHESIZER CONTROLLER
IC301
+2V REG.
IC302
FM MPX
IC402
POWER ON MUTE
IC403
HEADPHONE AMP
Ⓐ MD BOARD CN601 (Page 42)
Ⓑ MD BOARD CN501 (Page 43)
Ⓒ MICROCOMPUTER BOARD CN701 (Page 49)
DRY BATTERY TAPE BATT DC:1.5V R6 SIZE AAX1 BATT OR EQUIV
DRY BATTERY RADIO BATT DC:3V R6 SIZE AAX2 BATT OR EQUIV
• TOTAL CURRENT PLAY: 80mA REC: 110mA FF/REW: 140mA FM: 70mA AM: 90mA
DC IN 3V
J402 (HEADPHONE)
SP401 SPEAKER
J403 MIC PLUG IN POWER

• Waveforms

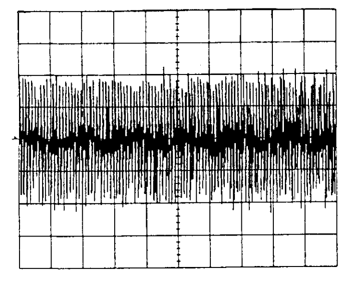
❶ IC201 ㉚ 1.78Vp-p, 75kHz



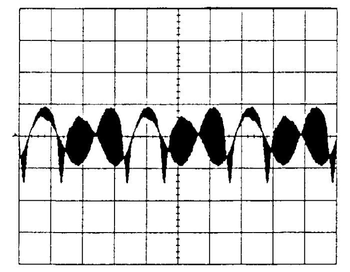
❷ IC201 ㉛ 1.64Vp-p, 75kHz



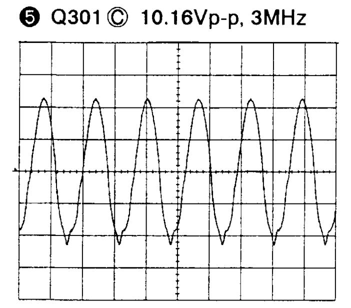
❸ Q302 Ⓑ 10mV/DIV, 200ns/DIV 44.4mVp-p



❹ Q301 Ⓑ, Q302 Ⓒ 480mVp-p, 143ns

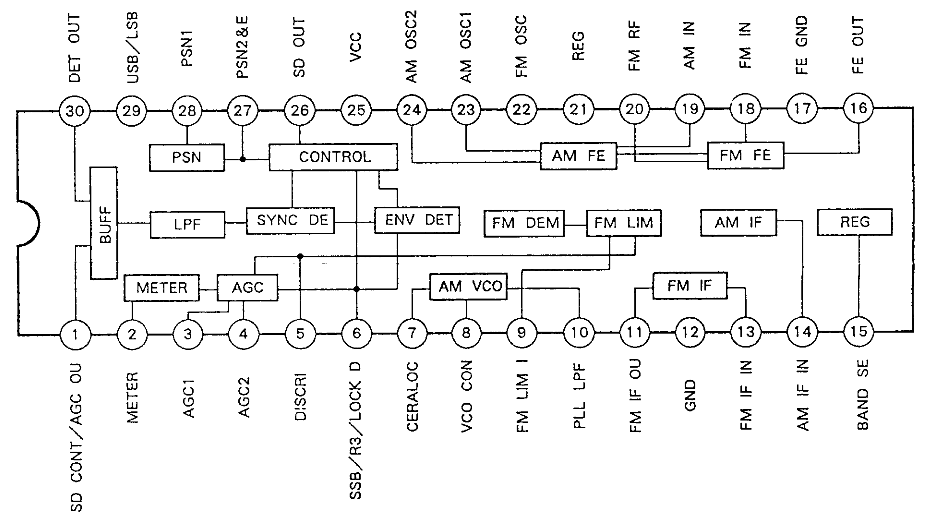


❺ Q301 Ⓒ 10.16Vp-p, 3MHz

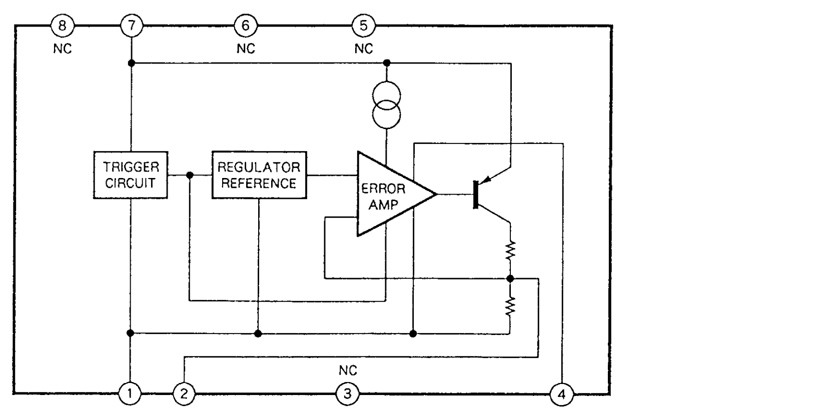


• IC Block Diagrams

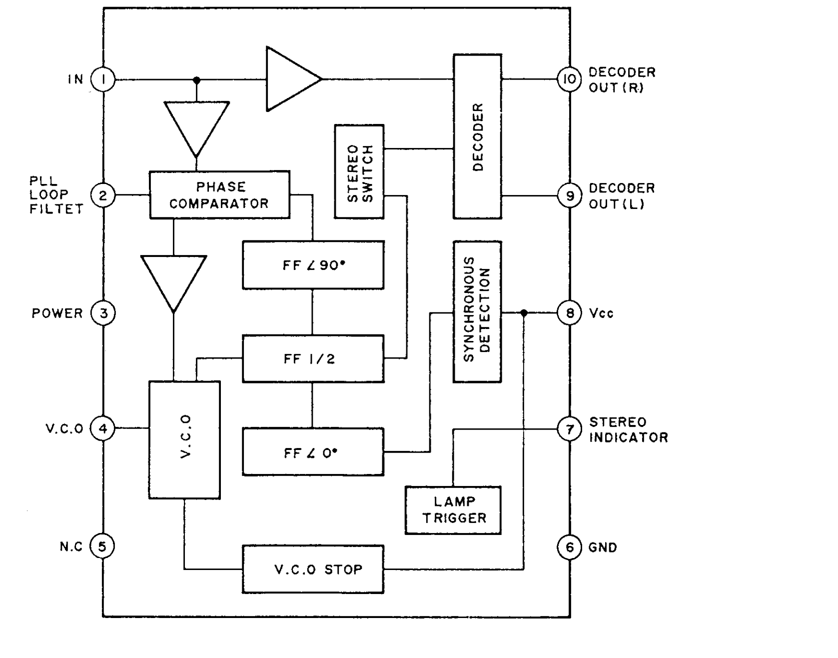
IC101 CXA1376AM


DET OUT
USB/LSB
PSN1
PSN2&E
SD OUT
VCC
AM OSC2
AM OSC1
FM OSC
REG
FM RF
AM IN
FM IN
FE GND
FE OUT
PSN
CONTROL
AM FE
FM FE
BUFF
LPF
SYNC DE
ENV DET
FM DEM
FM LIM
AM IF
REG
METER
AGC
AM VCO
FM IF
SD CONT/AGC OU
METER
AGC1
AGC2
DISCRI
SSB/R3/LOCK D
CERALOC
VCO CON
FM LIM I
PLL LPF
FM IF OU
GND
FM IF IN
AM IF IN
BAND SE

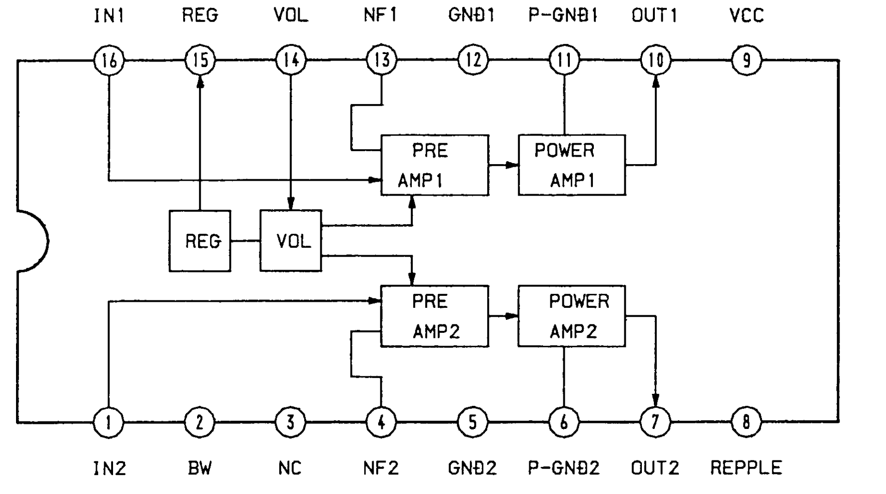
IC301 LA5002M



IC302 LM3335M



IC403 CXA1622M



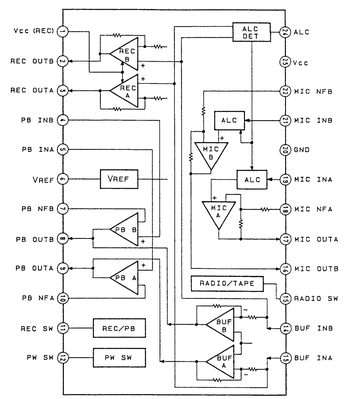
NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▭ :panel designation.
- B+ :B+ Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  ( ): LW/MW
  《 》: SW
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.
- Signal path.
  ⇨ :FM
  ➡ :SW
  ⇨⇨ :LW/MW
  ⊳ :TAPE (PB)

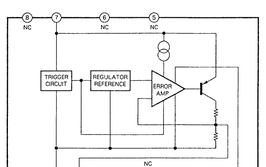
6-3. SCHEMATIC DIAGRAM –DECK Section–

• **IC Block Diagrams**

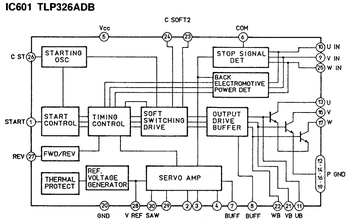
IC501 TA8155FN

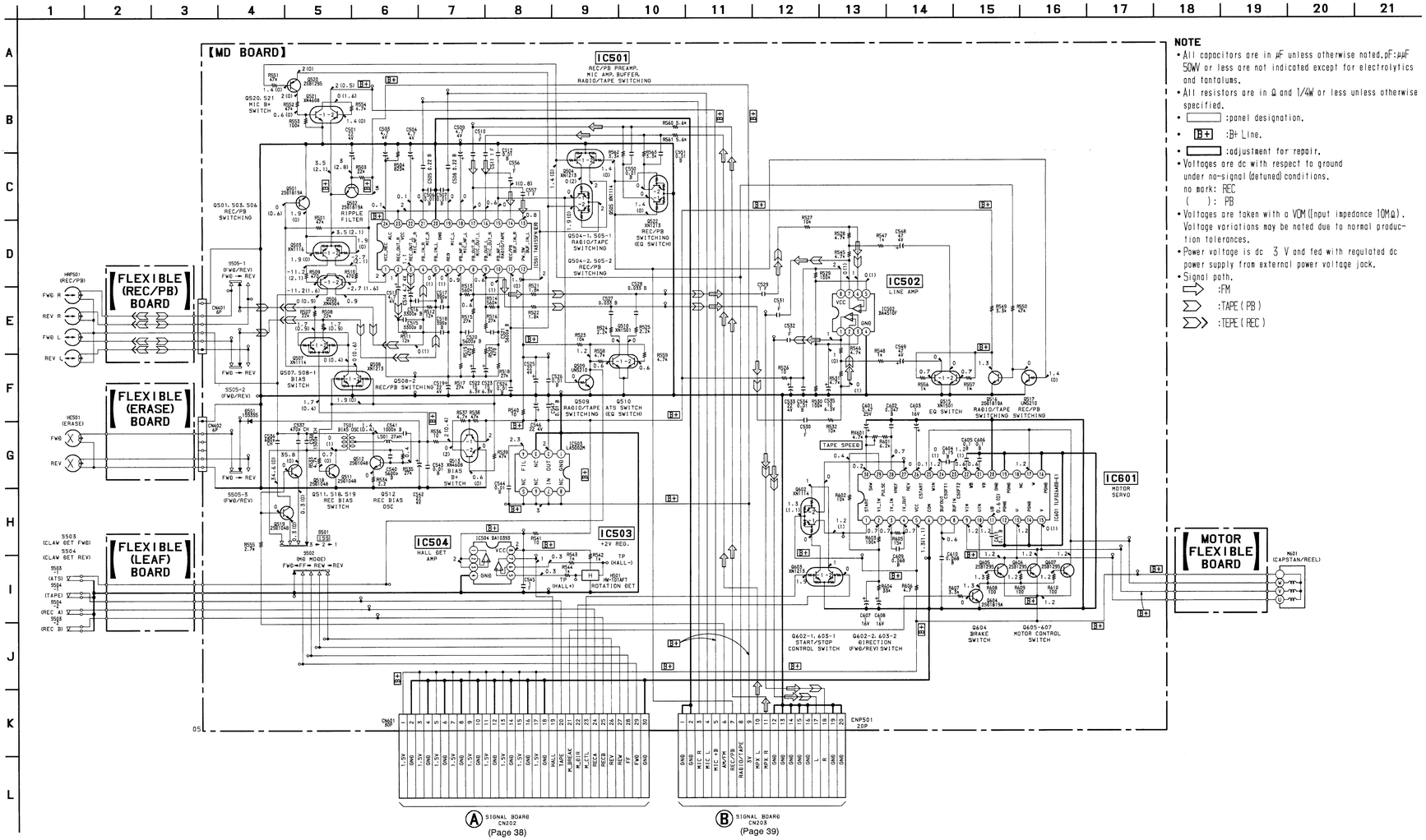


IC503 LA5002M



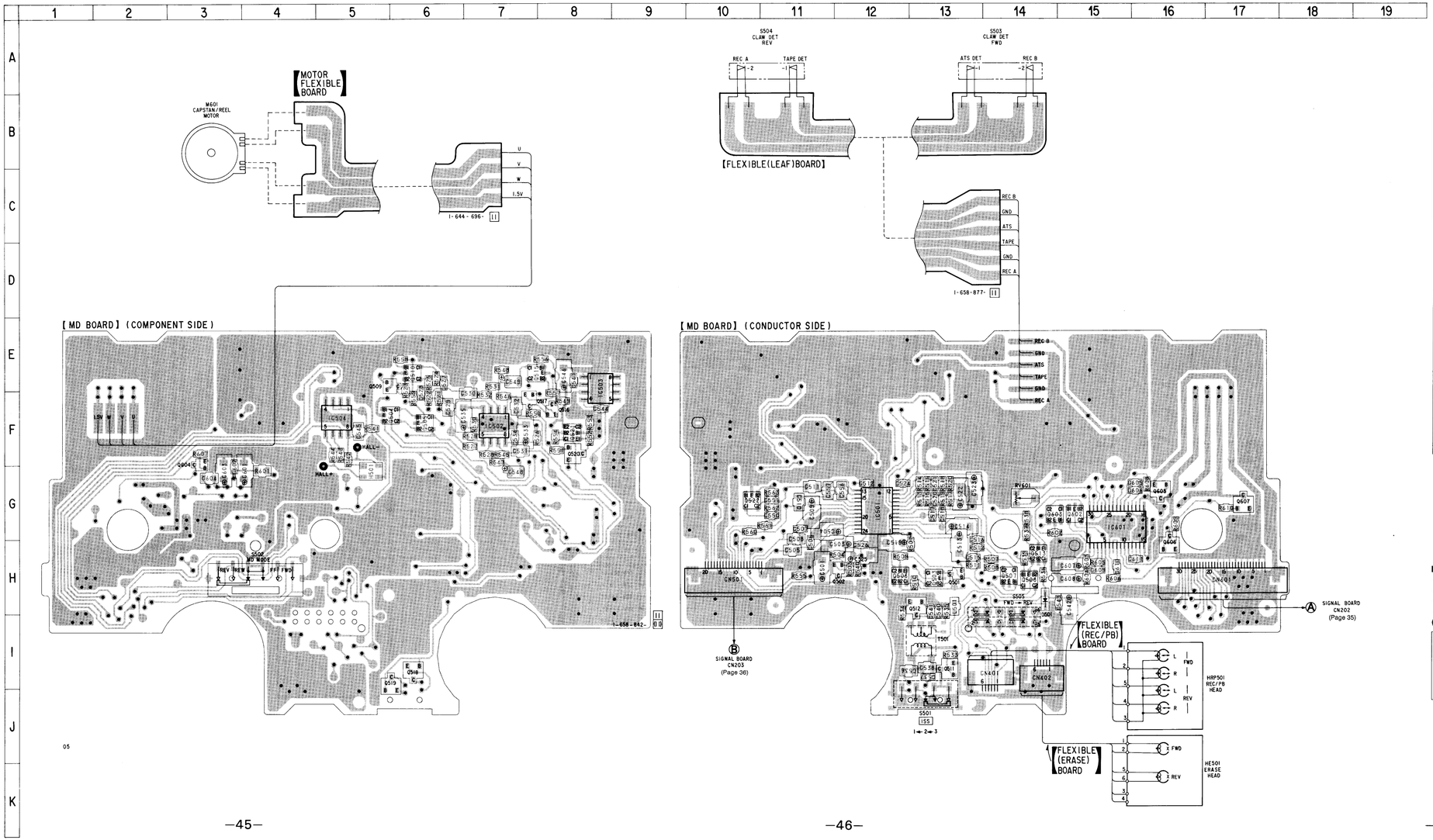
IC601 TLP326ADB





NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark: REC
  ( ): PB
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.
- Signal path.
  ⇨ : FM
  ⇨ : TAPE (PB)
  ⇨ : TAPE (REC)



- **Semiconductor Location**

Ref. No.	Location
D501	H-14
IC501	G-12
IC502	F-7
IC503	E-8
IC504	F-5
IC601	G-15
Q501	H-13
Q502	H-12
Q503	H-13
Q504	F-5
Q505	F-6
Q506	H-12
Q507	H-14
Q508	H-14
Q509	E-5
Q510	E-6
Q511	I-13
Q512	H-13
Q513	H-14
Q515	E-7
Q516	F-8
Q517	F-7
Q518	I-6
Q519	I-5
Q520	F-8
Q521	F-8
Q522	G-10
Q602	G-15
Q603	G-14
Q604	F-3
Q605	G-16
Q606	H-16
Q607	G-17

Note on Printed Wiring Board:

- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ● : Through hole.
- ▨ : Pattern from the side which enables seeing.

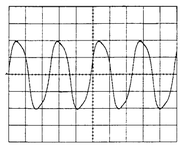
(The other layers' patterns are not indicated.)

Caution:

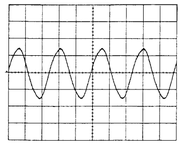
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

• Waveforms

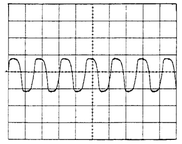
⑥ IC701 ㉔ 2.04Vp-p, 2MHz



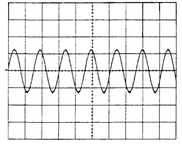
❼ IC701 ㉓ 1.5Vp-p, 2MHz

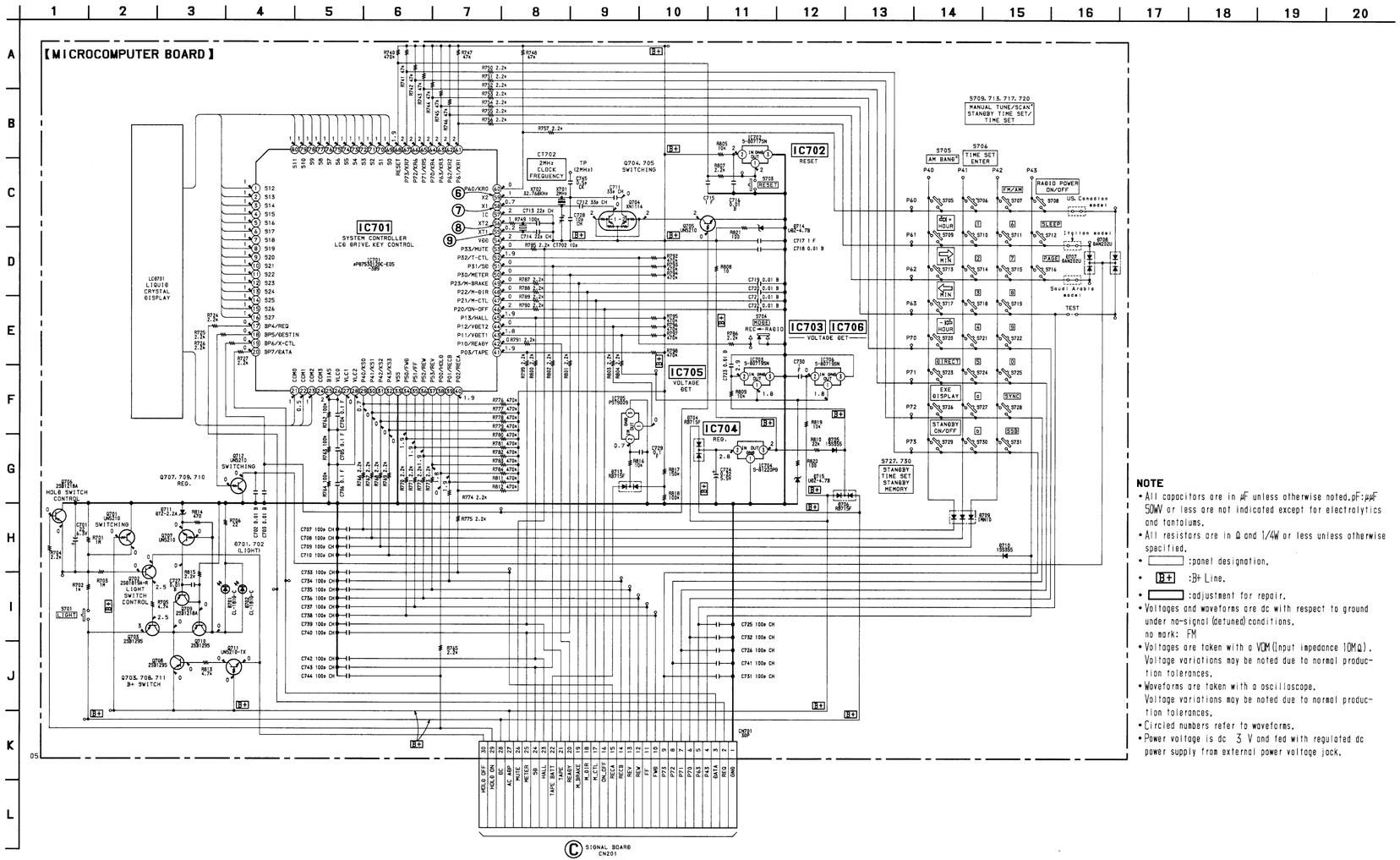


❽ IC701 ㉒ 2Vp-p, 32.768kHz



❾ IC701 ㉑ 1.3Vp-p, 32.768kHz

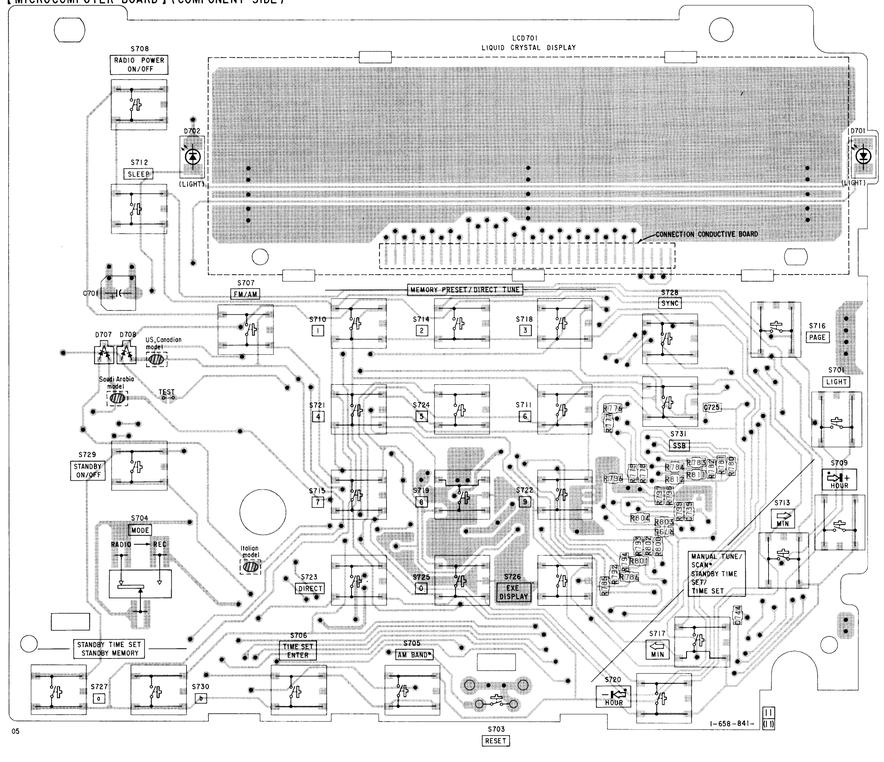




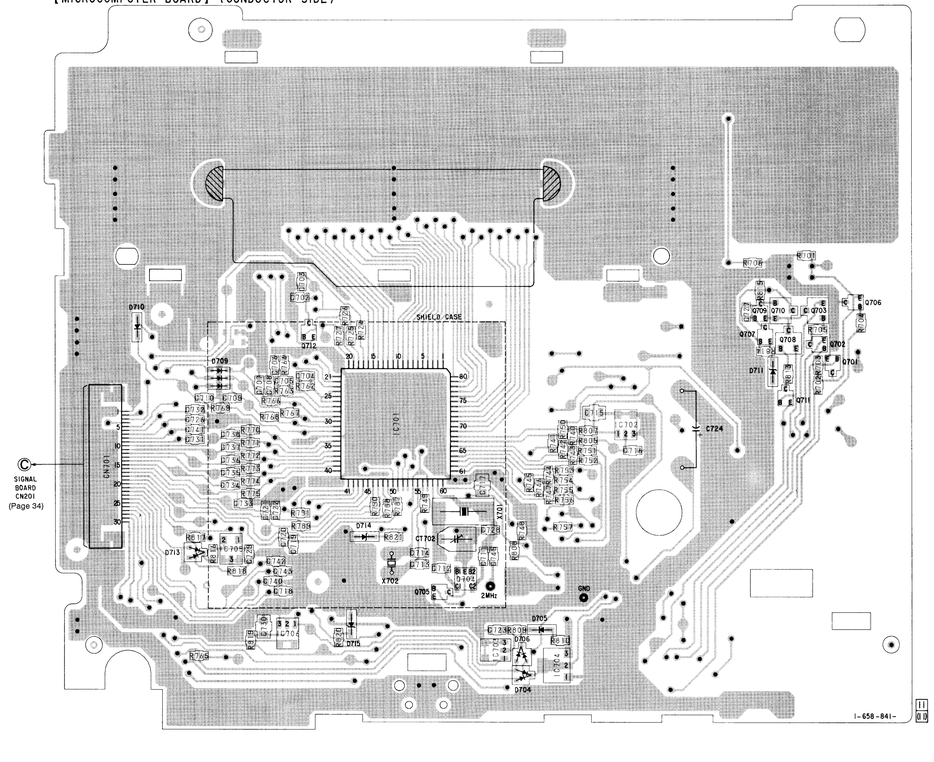
NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.

【MICROCOMPUTER BOARD】(COMPONENT SIDE)



【MICROCOMPUTER BOARD】(CONDUCTOR SIDE)



- **Semiconductor Location**

Ref. No.	Location
D701	B-10
D702	B-3
D704	H-16
D705	G-16
D706	G-16
D707	D-2
D708	D-2
D709	E-12
D710	D-11
D711	E-18
D713	F-12
D714	F-14
D715	G-14
IC701	E-14
IC702	E-17
IC703	G-15
IC704	H-16
IC705	F-12
IC706	G-13
Q701	D-19
Q702	D-19
Q703	D-19
Q704	G-15
Q705	G-15
Q706	D-19
Q707	D-18
Q708	D-18
Q709	D-18
Q710	D-18
Q711	E-18
Q712	D-13

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ● : Through hole.
- : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

6-7. IC PIN FUNCTION DESCRIPTION

SIGNAL BOARD IC201 μPD1724GB-687-1A7 (PLL SYNTHESIZER CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	LCD10	O	Not used this set
2	LCD9	O	Not used this set
3	LCD8	O	Not used this set
4	LCD7	O	Not used this set
5	LCD6	O	Not used this set
6	LCD5	O	Not used this set
7	LCD4	O	Not used this set
8	LCD3	O	Not used this set
9	LCD2	O	Not used this set
10	LCD1	O	Not used this set
11	NC	–	No connection
12	COM3	O	Not used this set
13	COM2	O	Not used this set
14	COM1	O	Not used this set
15	VSS3	–	Not used this set
16	CAP2	–	Not used this set
17	CAP1	–	Not used this set
18	VSS2	–	Not used this set
19	VDP=H_MUTE	O	Applies half mute during cue review (H during cue review only)
20	CGP=BEEP	O	Not used this set
21	NC	–	No connection
22	+B	–	Power supply terminal
23	VHF	I	FM local oscillation input terminal (86.7 MHz–118.7 MHz)
24	HF	I	AM local oscillation input terminal (55.995 MHz–85.844 MHz)
25	AM	I	Not used this set
26	GND	–	Ground terminal
27	EO1	O	Not used this set
28	EO2	O	PLL error output terminal
29	CE	I	CE is connected to the power supply
30	X1	–	Connects 75 KHz X'tal
31	X2	–	
32	VSS4	–	Not used this set
33	PA3=RADIO/TAPE	O	Controls the power supply for the radio system
34	PA2=REC/PB	O	Switches the record and playback AMP status (REC/PB)
35	PA1=AM/FM	O	Switches the power supply between AM circuit and FM circuit
36	PA0=ROD/BAR	O	Switches the power supply between rod antenna and bar antenna
37	PB3 D/A	O	For 100 Hz step at SSB
38	PB2 D/A	O	
39	PB1 D/A	O	
40	PB0 D/A	O	

Pin No.	Pin Name	I/O	Function
41	PC3=ENV/PSN	O	PSN/ENV select "H" : ENV "L" : PSN
42	PC2=SSB/SYNC	O	SSB/SYNC select "H" : SSB "L" : SYNC
43	PC1=L/U	O	LSB/USB select "H" : LSB "L" : USB
44	PC0=READY	O	Ready signal output to system control (IC701)
45	K3=REQ	I	Data signal input from system control (IC701)
46	K2=DATA	I	Request signal input from system control (IC701)
47	K1	I	Not used this set
48	K0	I	Not used this set
49	NC	–	No connection
50	NC	–	No connection
51	LCD16	O	Not used this set
52	LCD15	O	Not used this set
53	LCD14	O	Not used this set
54	LCD13	O	Not used this set
55	LCD12	O	Not used this set
56	LCD11	O	Not used this set

MICROCOMPUTER BOARD IC701 µPD753012GC-E05-3B9 (SYSTEM CONTROLLER, LCD DRIVE, KEY CONTROL)

Pin No.	Pin Name	I/O	Function
1	S12	O	Segment signal output to LCD (LCD701)
2	S13	O	Segment signal output to LCD (LCD701)
3	S14	O	Segment signal output to LCD (LCD701)
4	S15	O	Segment signal output to LCD (LCD701)
5	S16	O	Segment signal output to LCD (LCD701)
6	S17	O	Segment signal output to LCD (LCD701)
7	S18	O	Segment signal output to LCD (LCD701)
8	S19	O	Segment signal output to LCD (LCD701)
9	S20	O	Segment signal output to LCD (LCD701)
10	S21	O	Segment signal output to LCD (LCD701)
11	S22	O	Segment signal output to LCD (LCD701)
12	S23	O	Segment signal output to LCD (LCD701)
13	S24	O	Segment signal output to LCD (LCD701)
14	S25	O	Segment signal output to LCD (LCD701)
15	S26	O	Segment signal output to LCD (LCD701)
16	S27	O	Segment signal output to LCD (LCD701)
17	BP4/REQ	O	Request signal output to PLL synthesizer control (IC201)
18	BP5/DESTIN	O	Source signal output terminal for destination judgment
19	BP6/X-CTL	O	Used for shifting the system clock (2 MHz)
20	BP7/DATA	O	Data signal output to PLL synthesizer control (IC201)
21	COM0	O	Common signal output to LCD (LCD701)
22	COM1	O	Common signal output to LCD (LCD701)
23	COM2	O	Common signal output to LCD (LCD701)
24	COM3	O	Not used this set
25	BIAS	–	Output terminal for cutting off external split resistor
26	VLC0	–	LCD drive power terminal
27	VLC1	–	Split resistor is connected externally
28	VLC2	–	(1/3 duty, 1/3 bias)
29	P40/KS0	O	Key source signal output terminal
30	P41/KS1	O	Key source signal output terminal
31	P42/KS2	O	Key source signal output terminal
32	P43/KS3	O	Key source signal output terminal
33	VSS	–	Ground terminal
34	P50/FWD	I	Judges the mechanical deck status
35	P51/FF	I	
36	P52/REW	I	
37	P53/REV	I	
38	P00/HOLD	I	Detects the ON/OFF of key HOLD
39	P01/REC B	I	Detects an erase protect notch on the side-B of tape
40	P02/REC A	I	Detects an erase protect notch on the side-A of tape

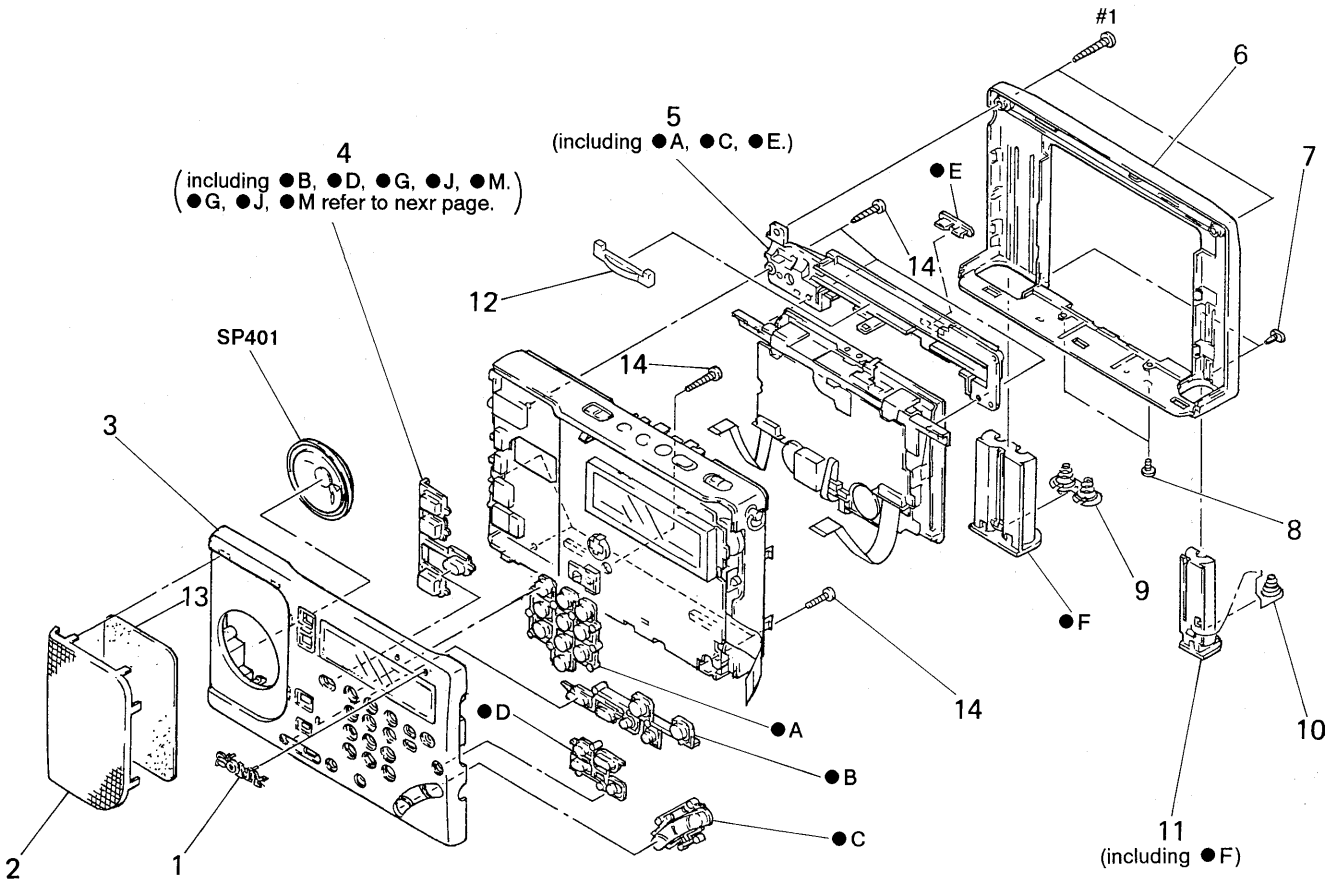
Pin No.	Pin Name	I/O	Function
41	P03/TAPE	I	Detects the presence of a tape
42	P10/READY	I	Ready signal input from PLL synthesizer control (IC201)
43	P11/VDET1	I	Detects the voltage of main battery
44	P12/VDET2	I	Detects the voltage for motor battery
45	P13/HALL	I	Detects the motor rotation
46	P20/ON-OFF	O	Controls the power supply
47	P21/M-CTL	O	Controls the motor
48	P22/M-DIR	O	
49	P23/M-BRAKE	O	
50	P30/METER	I	Judges the AM scan stop
51	P31/SD	I	Judges FM scan stop and SYNC lock status
52	P32/T-CTL	I	Detects the timer switching
53	P33/MUTE	O	Mute signal output terminal "H" : MUTE ON
54	VDD	–	Power supply terminal
55	XT1	–	Connects sud clock X'tal (32 KHz)
56	XT2	–	
57	IC	–	No connection
58	X1	–	Connects main clock X'tal (2 MHz)
59	X2	–	
60	P60/KR0	I	Key return signal input terminal
61	P61/KR1	I	Key return signal input terminal
62	P62/KR2	I	Key return signal input terminal
63	P63/KR3	I	Key return signal input terminal
64	P70/KR4	I	Key return signal input terminal
65	P71/KR5	I	Key return signal input terminal
66	P72/KR6	I	Key return signal input terminal
67	P73/KR7	I	Key return signal input terminal
68	RESET	I	System reset input terminal
69	S0	O	Segment signal output to LCD (LCD701)
70	S1	O	Segment signal output to LCD (LCD701)
71	S2	O	Segment signal output to LCD (LCD701)
72	S3	O	Segment signal output to LCD (LCD701)
73	S4	O	Segment signal output to LCD (LCD701)
74	S5	O	Segment signal output to LCD (LCD701)
75	S6	O	Segment signal output to LCD (LCD701)
76	S7	O	Segment signal output to LCD (LCD701)
77	S8	O	Segment signal output to LCD (LCD701)
78	S9	O	Segment signal output to LCD (LCD701)
79	S10	O	Segment signal output to LCD (LCD701)
80	S11	O	Segment signal output to LCD (LCD701)

SECTION 7
EXPLODED VIEWS

NOTE:

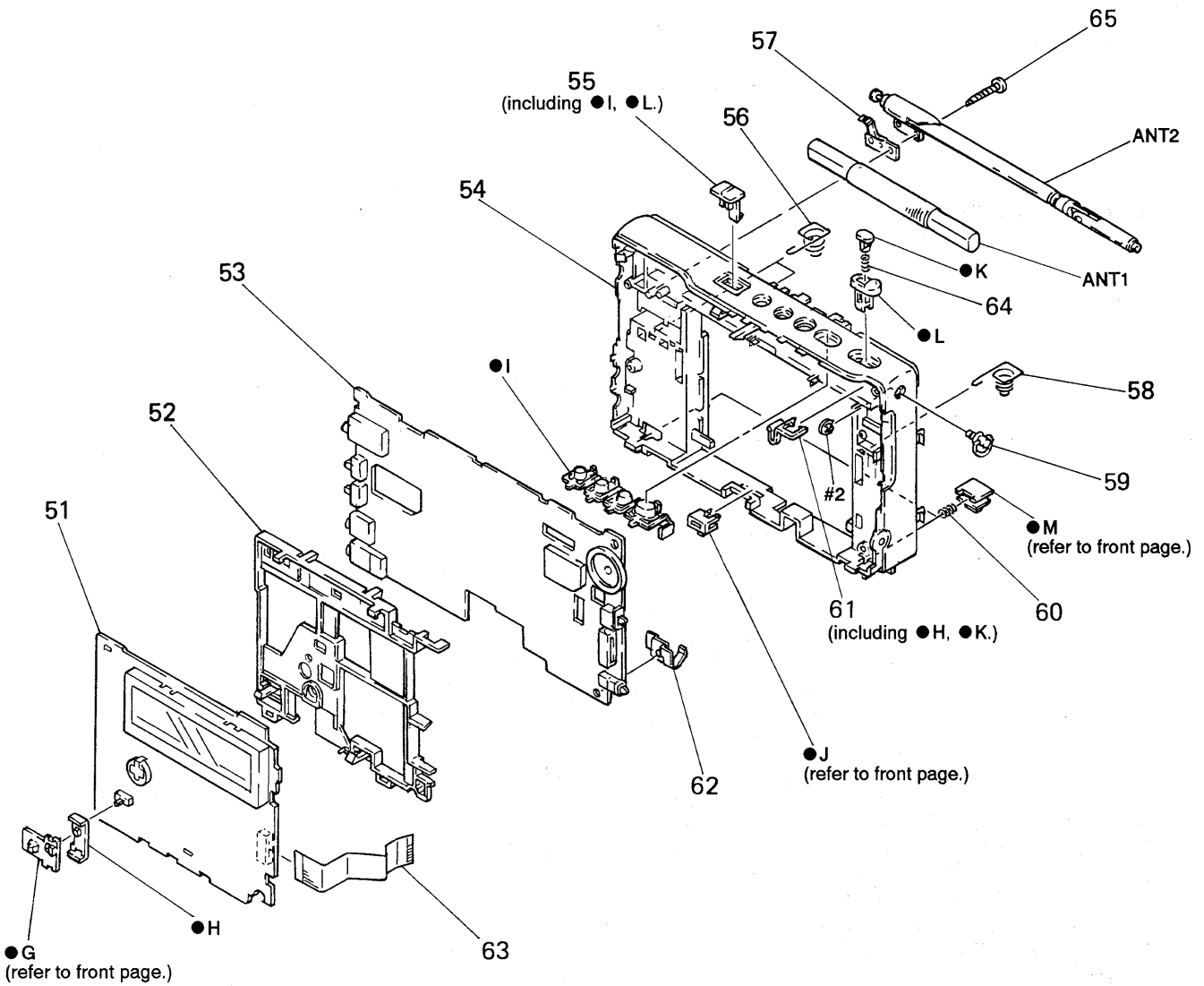
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	4-969-961-01	EMBLEM (NO. 4), SONY	
2	3-929-855-01	PANEL (SP)	
3	X-3371-207-1	CABINET (FRONT) ASSY	
4	3-929-747-01	BUTTON (COMBINED) (including KNOB(MODE SELECTION)/ BUTTON(ON/OFF)/BUTTON(A·B)/ BUTTON(LIGHT)/KNOB(ISS)/KNOB(RELEASE))	
5	3-929-749-01	PANEL (COMBINED), REAR (including BUTTON(10KEY)/BUTTON(JOG)/ PANEL, REAR/KNOB(OPEN))	
6	3-929-760-01	CABINET (REAR)	
7	3-930-204-01	FOOT, RUBBER	
8	3-704-197-81	SCREW (M1.4X5.0)	
9	X-3371-192-1	SPRING ASSY, BATTERY COIL	
10	3-930-223-01	SPRING (MINUS), BATTERY COIL	
11	3-929-746-01	BOX (COMBINED), BATTERY (including BOX(A), BATTERY/BOX(B), BATTERY)	
12	3-899-533-01	HOLDER	
13	3-931-353-01	SHEET (SP)	
14	3-933-239-01	SCREW +BTP 2X10	
SP401	1-505-141-11	SPEAKER (4.5CM)	

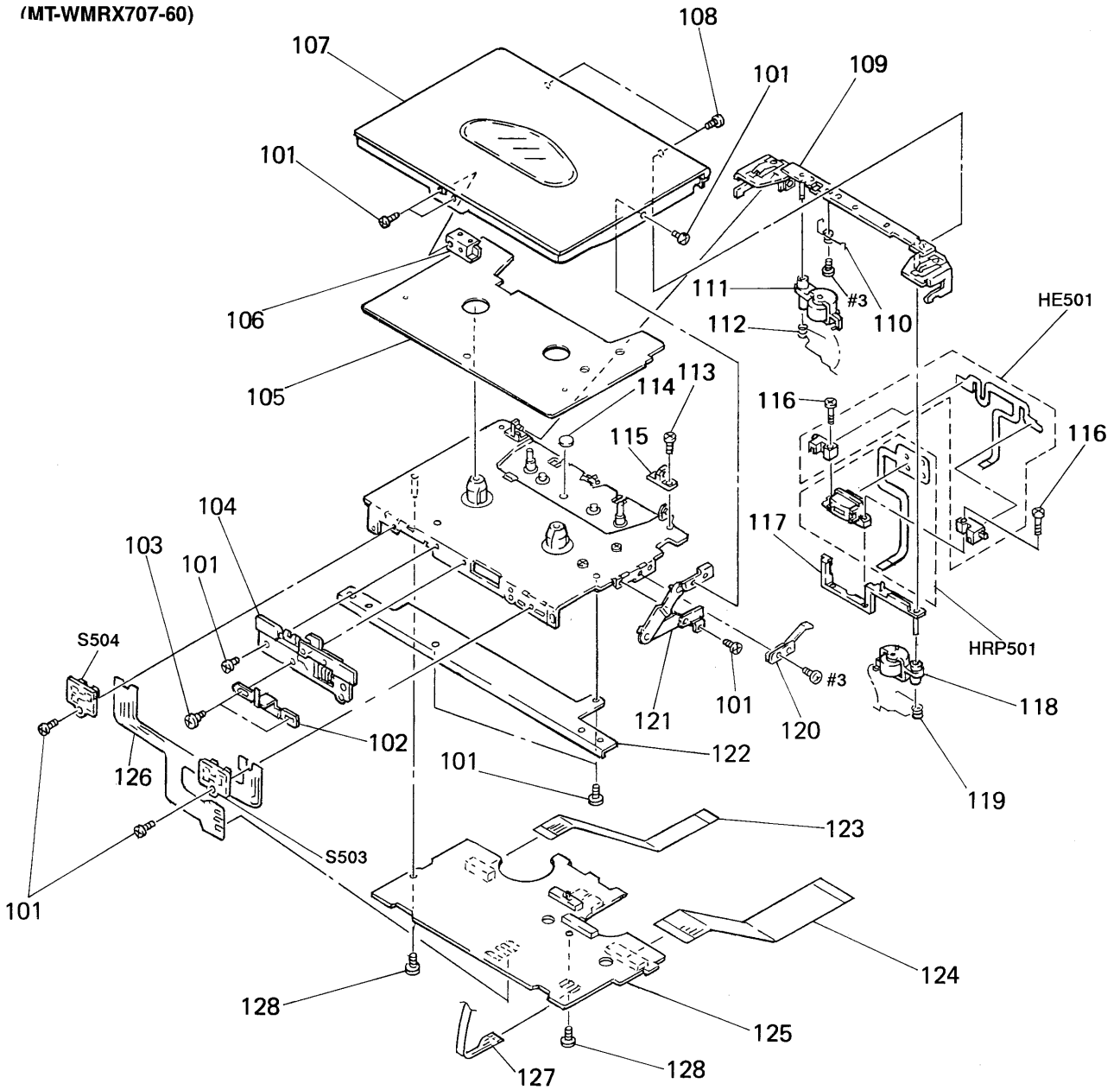
(2) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	A-3662-419-A	MICROCOMPUTER BOARD, COMPLETE	
52	3-929-769-01	CHASSIS (SUB)	
53	A-3662-421-A	SIGNAL BOARD, COMPLETE	
54	3-929-768-01	CHASSIS (MAIN)	
55	3-929-748-01	KNOB (COMBINED) (including KNOB(HOLD)/KNOB(REC)/ BUTTON (PLAY))	
56	3-930-222-01	SPRING (B), BATTERY COIL	
57	3-929-856-01	PLATE (ANT), CONTACT	
58	3-929-656-01	SPRING (A), BATTERY COIL	
59	3-930-466-01	BRACKET (HAND STRAP)	

Ref. No.	Part No.	Description	Remark
60	3-378-943-01	SPRING (WIND)	
61	3-929-744-01	SLIDER (COMBINED) (including POINTER/BUTTON(REC)/ SLIDER(REC))	
62	3-929-845-01	PLATE (TC), CONTACT, BATTERY	
63	1-658-875-11	FLEXIBLE (B) BOARD	
64	3-896-660-01	SPRING, COMPRESSION	
65	3-933-239-01	SCREW +BTP 2X10	
ANT1	1-501-793-11	ANTENNA, FERRITE-ROD (LW.MW)	
ANT2	1-501-794-11	ANTENNA, TELESCOPIC (FM)	

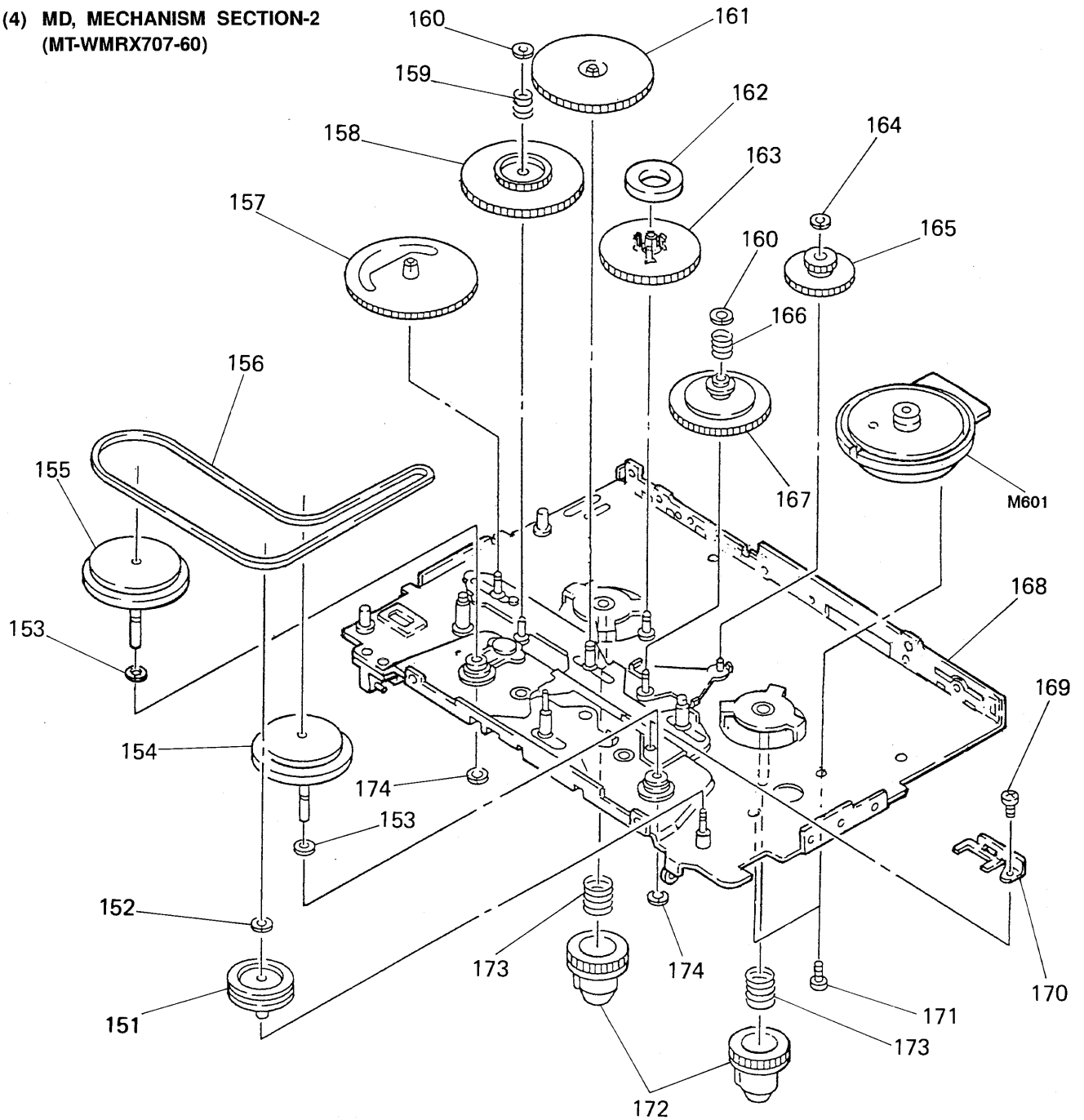
(3) MD, MECHANISM SECTION-1
(MT-WMRX707-60)



Ref. No.	Part No.	Description	Remark
101	3-704-197-11	SCREW (M1.4X2.0), LOCKING	
102	3-929-841-01	LEVER (OPEN)	
103	3-929-894-01	SCREW (M1.4), PRECISION STEP	
104	X-3366-556-1	BRACKET ASSY	
105	3-929-853-01	COVER, MD	
106	3-929-776-01	LOCKER, OPEN	
107	X-3371-208-1	LID ASSY, CASSETTE	
108	3-365-630-11	SCREW (M1.4)	
109	X-3366-299-1	HOLDER ASSY	
110	3-386-683-01	SPRING (H)	
111	X-3366-298-1	PINCH LEVER (N) ASSY	
112	3-386-684-02	SPRING (PINCH N)	
113	3-704-197-21	SCREW (M1.4X2.5), LOCKING	
* 114	3-378-826-01	SHEET (AB)	
115	3-386-704-01	GUIDE (B), HOLDER	
116	3-389-448-01	SCREW (M1.4), STEP	

Ref. No.	Part No.	Description	Remark
* 117	3-386-646-01	LEVER, HEAD	
118	X-3366-296-1	PINCH LEVER (R) ASSY	
119	3-386-685-02	SPRING (PINCH R)	
120	3-929-844-01	SPRING (EJECT)	
121	X-3368-975-1	ARM ASSY, CLICK	
122	3-929-840-01	BRACKET	
123	1-658-876-11	FLEXIBLE (C) BOARD	
124	1-658-874-11	FLEXIBLE (A) BOARD	
125	A-3662-423-A	MD BOARD, COMPLETE	
126	1-658-877-11	FLEXIBLE (LEAF) BOARD	
127	1-644-696-11	MOTOR FLEXIBLE BOARD	
128	3-366-892-01	SCREW (M1.4X1.1)	
HE501	1-500-059-11	HEAD, MAGNETIC (ERASE)	
HRP501	1-500-060-11	HEAD, MAGNETIC (RECORD/PLAYBACK)	
S503	1-692-100-11	SWITCH, LEAF (CLAW DET FWD(ATS/REC B))	
S504	1-692-101-11	SWITCH, LEAF (CLAW DET REV(TAPE/REC A))	

(4) MD, MECHANISM SECTION-2 (MT-WMRX707-60)



Ref. No.	Part No.	Description	Remark
151	3-386-711-01	PULLEY (REVERSE)	
152	3-338-645-21	WASHER (0.8-2.5)	
153	3-386-694-01	WASHER	
154	X-3368-637-1	WHEEL (RS) ASSY, CAPSTAN	
155	X-3368-636-1	WHEEL (NS) ASSY, CAPSTAN	
156	3-908-638-01	BELT	
157	3-386-852-01	GEAR (CAM)	
158	3-386-631-01	GEAR (A)	
159	3-386-663-01	SPRING, COMPRESSION	
160	3-906-183-01	WASHER	
161	3-386-691-01	GEAR (B)	
162	3-386-706-01	MAGNET	
163	3-386-633-01	GEAR (E)	
164	3-338-645-31	WASHER (0.8-2.5)	
165	3-386-632-01	GEAR (D)	
166	3-904-227-01	SPRING, COMPRESSION	
167	X-3370-392-2	CLUTCH ASSY	
168	X-3366-295-1	CHASSIS ASSY (K)	
169	3-366-892-01	SCREW (M1.4X1.1)	
* 170	3-906-049-01	LEVER (REC), SELECTION	
171	3-906-045-01	SCREW	
172	3-386-634-03	GEAR (REEL)	
173	3-386-662-01	SPRING, COMPRESSION	
174	3-325-394-01	WASHER, STOPPER	
M601	1-698-084-11	MOTOR	

SECTION 8
ELECTRICAL PARTS LIST

FLEXIBLE (LEAF) **MD**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  IT:Italian EA:Saudi Arabia JE:Tourist
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
	1-658-877-11	FLEXIBLE (LEAF) BOARD			
		**********			
S503	1-692-100-11	SWITCH, LEAF (CLAW DET FWD(ATS/REC B))			
S504	1-692-101-11	SWITCH, LEAF (CLAW DET REV(TAPE/REC A))			
**********					
	A-3662-423-A	MD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C501	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C503	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C504	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C505	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C508	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C509	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C510	1-164-346-11	CERAMIC CHIP	1uF		16V
C511	1-164-346-11	CERAMIC CHIP	1uF		16V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C513	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C514	1-135-151-21	TANTALUM CHIP	4.7uF	20%	4V
C515	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C516	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C517	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C518	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C519	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C520	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C521	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C522	1-107-685-11	TANTAL. CHIP	15uF	20%	6.3V
C523	1-107-685-11	TANTAL. CHIP	15uF	20%	6.3V
C524	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C525	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C526	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C527	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C528	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C529	1-164-346-11	CERAMIC CHIP	1uF		16V
C530	1-164-346-11	CERAMIC CHIP	1uF		16V
C531	1-164-346-11	CERAMIC CHIP	1uF		16V
C532	1-164-346-11	CERAMIC CHIP	1uF		16V
C533	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C534	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C535	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C536	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C537	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C538	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C540	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C541	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C542	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C543	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C544	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C545	1-164-346-11	CERAMIC CHIP	1uF		16V
C546	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C547	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C548	1-107-811-11	TANTAL. CHIP	47uF	20%	4V
C549	1-107-811-11	TANTAL. CHIP	47uF	20%	4V
C550	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C551	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C556	1-164-346-11	CERAMIC CHIP	1uF		16V
C557	1-164-346-11	CERAMIC CHIP	1uF		16V
C601	1-135-145-11	TANTALUM CHIP	0.47uF	10%	35V
C602	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C603	1-135-091-91	TANTAL. CHIP	1uF	20%	16V
C604	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C605	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C606	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C607	1-135-091-91	TANTAL. CHIP	1uF	20%	16V
C608	1-135-091-91	TANTAL. CHIP	1uF	20%	16V
C609	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C610	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C611	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
* CN401	1-764-051-11	CONNECTOR, FPC (ZIF) 6P			
* CN402	1-764-051-11	CONNECTOR, FPC (ZIF) 6P			
CN501	1-573-929-11	CONNECTOR, FFC/FPC (ZIF) 20P			
* CN601	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P			

MD

Ref.No.	Part No.	Description	Remark
		< DIODE >	
D501	8-719-988-62	DIODE 1SS355	
		< HOLE ELEMENT >	
H501	8-759-052-95	HALL ELEMENT HW-101AFT-DEF	
		< IC >	
IC501	8-759-062-63	IC TA8155FN	
IC502	8-759-298-70	IC BA4510F-T1	
IC503	8-759-804-76	IC LA5002M	
IC504	8-759-510-73	IC BA10393F-E2	
IC601	8-759-996-15	IC TLP326ADB	
		< COIL >	
L501	1-412-996-31	INDUCTOR 27uH	
		< TRANSISTOR >	
Q501	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q502	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q503	8-729-423-75	TRANSISTOR XN1116	
Q504	8-729-403-07	TRANSISTOR XN1213	
Q505	8-729-422-41	TRANSISTOR XN1114	
Q506	8-729-425-18	TRANSISTOR XN4504	
Q507	8-729-422-41	TRANSISTOR XN1114	
Q508	8-729-403-07	TRANSISTOR XN1213	
Q509	8-729-420-44	TRANSISTOR UN5210	
Q510	8-729-402-13	TRANSISTOR XN1501	
Q511	8-729-800-37	TRANSISTOR 2SD1048-X7	
Q512	8-729-800-37	TRANSISTOR 2SD1048-X7	
Q513	8-729-402-16	TRANSISTOR XN4608	
Q515	8-729-402-13	TRANSISTOR XN1501	
Q516	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q517	8-729-420-44	TRANSISTOR UN5210	
Q518	8-729-800-37	TRANSISTOR 2SD1048-X7	
Q519	8-729-800-37	TRANSISTOR 2SD1048-X7	
Q520	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q521	8-729-402-16	TRANSISTOR XN4608	
Q522	8-729-403-07	TRANSISTOR XN1213	
Q602	8-729-422-41	TRANSISTOR XN1114	
Q603	8-729-403-07	TRANSISTOR XN1213	
Q604	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q605	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q606	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q607	8-729-807-87	TRANSISTOR 2SB1295-UL6	
		< RESISTOR >	
R501	1-216-841-11	METAL CHIP 47K 5% 1/16W	

Ref.No.	Part No.	Description	Remark
R503	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R504	1-216-856-11	METAL CHIP 820K 5% 1/16W	
R507	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R508	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R509	1-216-817-11	METAL CHIP 470 5% 1/16W	
R510	1-216-817-11	METAL CHIP 470 5% 1/16W	
R511	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R512	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R513	1-216-854-11	METAL CHIP 560K 5% 1/16W	
R514	1-216-854-11	METAL CHIP 560K 5% 1/16W	
R515	1-216-838-11	METAL CHIP 27K 5% 1/16W	
R516	1-216-838-11	METAL CHIP 27K 5% 1/16W	
R517	1-216-838-11	METAL CHIP 27K 5% 1/16W	
R518	1-216-838-11	METAL CHIP 27K 5% 1/16W	
R519	1-216-817-11	METAL CHIP 470 5% 1/16W	
R520	1-216-817-11	METAL CHIP 470 5% 1/16W	
R521	1-216-824-11	METAL CHIP 1.8K 5% 1/16W	
R522	1-216-824-11	METAL CHIP 1.8K 5% 1/16W	
R523	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R524	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R525	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R526	1-216-797-11	METAL CHIP 10 5% 1/16W	
R527	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R528	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R529	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R530	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R531	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R532	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R533	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R534	1-216-789-11	METAL CHIP 2.2 5% 1/16W	
R535	1-216-838-11	METAL CHIP 27K 5% 1/16W	
R536	1-216-797-11	METAL CHIP 10 5% 1/16W	
R537	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R538	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R539	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R540	1-216-797-11	METAL CHIP 10 5% 1/16W	
R541	1-216-797-11	METAL CHIP 10 5% 1/16W	
R542	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R543	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R544	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R545	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R546	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R547	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R548	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R549	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R550	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R551	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R552	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R553	1-216-845-11	METAL CHIP 100K 5% 1/16W	

Ref. No.	Part No.	Description			Remark
R554	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R555	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R556	1-216-821-11	METAL CHIP	1K	5%	1/16W
R557	1-216-821-11	METAL CHIP	1K	5%	1/16W
R558	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R559	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R560	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R561	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R562	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R563	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R601	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R602	1-216-833-11	METAL CHIP	10K	5%	1/16W
R603	1-216-845-11	METAL CHIP	100K	5%	1/16W
R604	1-216-839-11	METAL CHIP	33K	5%	1/16W
R605	1-216-835-11	METAL CHIP	15K	5%	1/16W
R606	1-216-793-11	METAL GLAZE	4.7	5%	1/16W
R607	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R608	1-216-809-11	METAL CHIP	100	5%	1/16W
R609	1-216-809-11	METAL CHIP	100	5%	1/16W
R610	1-216-809-11	METAL CHIP	100	5%	1/16W
		< VARIABLE RESISTOR >			
RV601	1-241-593-11	RES, ADJ, METAL GRAZE 4.7K			
		< SWITCH >			
S501	1-762-079-11	SWITCH, SLIDE (ISS)			
S502	1-692-370-11	SWITCH, SLIDE (MD MODE)			
S505	1-692-589-11	SWITCH, SLIDE (FWD/REV)			
		< TRANSFORMER >			
T501	1-411-447-21	COIL (BIAS OSC)			

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	A-3662-419-A	MICROCOMPUTER BOARD, COMPLETE			
		**********			
	1-537-946-11	CONDUCTIVE BOARD, CONNECTION			
	3-929-745-01	PLATE (COMBINDE), LIGHT GUIDE			
		< CAPACITOR >			
C701	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C702	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C703	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C704	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C705	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C707	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C708	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C709	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C710	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C711	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C712	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C713	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C714	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C715	1-164-346-11	CERAMIC CHIP	1uF		16V
C716	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C717	1-164-346-11	CERAMIC CHIP	1uF		16V
C718	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C719	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C720	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C721	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C722	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C723	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C724	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C725	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C726	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C727	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C728	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C729	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C730	1-164-346-11	CERAMIC CHIP	1uF		16V
C731	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C732	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C733	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C734	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C735	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C736	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C737	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C738	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C739	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C740	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C741	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C742	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C743	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C744	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C745	1-162-904-11	CERAMIC CHIP	0.5PF	0.25PF	50V
		< CONNECTOR >			
* CN701	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P			
		< TRIMMER >			
CT702	1-141-327-11	CAP, VAR, TRIMMER (CHIP TYPE) 10P			
		< DIODE >			
D701	8-719-037-71	LED	CL-181G-C (LIGHT)		
D702	8-719-037-71	LED	CL-181G-C (LIGHT)		
D704	8-719-988-82	DIODE	RB715F		
D705	8-719-988-62	DIODE	1SS355		
D706	8-719-988-82	DIODE	RB715F		

MICROCOMPUTER

Ref. No.	Part No.	Description	Remark
D707	8-719-941-86	DIODE DAN202U	
D708	8-719-941-86	DIODE DAN202U	
D709	8-719-951-22	DIODE IMN10	
D710	8-719-988-62	DIODE 1SS355	
D711	8-719-976-69	DIODE DTZ2.2A	
D713	8-719-988-82	DIODE RB715F	
D714	8-719-976-96	DIODE DTZ4.7C	
D715	8-719-976-96	DIODE DTZ4.7C	
		< IC >	
IC701	8-759-372-72	IC uPD753012GC-E05-3B9	
IC702	8-759-255-03	IC S-80717SN-DE-T1	
IC703	8-759-249-34	IC S-80719SN-DG	
IC704	8-759-255-04	IC S-81220PG-PS-T1	
IC705	8-759-372-71	IC PST9009NL	
IC706	8-759-249-34	IC S-80719SN-DG	
		< LIQUID CRYSTAL DISPLAY >	
LCD701	1-810-964-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< TRANSISTOR >	
Q701	8-729-420-44	TRANSISTOR UN5210	
Q702	8-729-402-32	TRANSISTOR 2SD1819A-R	
Q703	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q704	8-729-422-41	TRANSISTOR XN1114	
Q705	8-729-420-44	TRANSISTOR UN5210	
Q706	8-729-402-55	TRANSISTOR 2SB1218A-R-TX	
Q707	8-729-420-44	TRANSISTOR UN5210	
Q708	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q709	8-729-402-55	TRANSISTOR 2SB1218A-R-TX	
Q710	8-729-807-87	TRANSISTOR 2SB1295-UL6	
Q711	8-729-420-44	TRANSISTOR UN5210	
Q712	8-729-420-44	TRANSISTOR UN5210	
		< RESISTOR >	
R701	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R702	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R703	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R704	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R705	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R706	1-216-801-11	METAL CHIP 22 5% 1/16W	
R724	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R725	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R726	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R727	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R740	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R741	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R742	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R743	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R744	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R745	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R746	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R747	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R748	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R749	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R750	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R751	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R752	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R753	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R754	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R755	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R756	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R757	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R762	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R763	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R764	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R765	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R766	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R767	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R768	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R769	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R770	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R771	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R772	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R773	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R774	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R775	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R776	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R777	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R778	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R779	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R780	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R781	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R782	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R783	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R784	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R785	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R786	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R787	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R788	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R789	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R790	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R791	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R792	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R793	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R794	1-216-853-11	METAL CHIP 470K 5% 1/16W	

Ref. No.	Part No.	Description			Remark
R795	1-216-853-11	METAL CHIP	470K	5%	1/16W
R796	1-216-853-11	METAL CHIP	470K	5%	1/16W
R797	1-216-853-11	METAL CHIP	470K	5%	1/16W
R798	1-216-853-11	METAL CHIP	470K	5%	1/16W
R799	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R800	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R801	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R802	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R803	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R804	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R805	1-216-833-11	METAL CHIP	10K	5%	1/16W
R807	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R808	1-216-797-11	METAL CHIP	10	5%	1/16W
R809	1-216-833-11	METAL CHIP	10K	5%	1/16W
R810	1-216-837-11	METAL CHIP	22K	5%	1/16W
R811	1-216-853-11	METAL CHIP	470K	5%	1/16W
R812	1-216-853-11	METAL CHIP	470K	5%	1/16W
R813	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R814	1-216-817-11	METAL CHIP	470	5%	1/16W
R815	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R816	1-216-833-11	METAL CHIP	10K	5%	1/16W
R817	1-216-847-11	METAL CHIP	150K	5%	1/16W
R818	1-216-845-11	METAL CHIP	100K	5%	1/16W
R819	1-216-833-11	METAL CHIP	10K	5%	1/16W
R820	1-216-809-11	METAL CHIP	100	5%	1/16W
R821	1-216-809-11	METAL CHIP	100	5%	1/16W

< SWITCH >

S701	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(LIGHT)
S703	1-554-088-00	SWITCH, KEY BOARD (RESET)	
S704	1-553-977-31	SWITCH, SLIDE (MODE)	
S705	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(AM BAND˙)
S706	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(TIME SET/ENTER)
S707	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(FM/AM)
S708	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(RADIO POWER ON/OFF)
S709	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(⇨I+/HOUR)
S710	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(1)
S711	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(6)
S712	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(SLEEP)
S713	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(⇨/MIN)
S714	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(2)
S715	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(7)
S716	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(PAGE)
S717	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(⇦/MIN)
S718	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(3)
S719	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(8)
S720	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(-I⇨/HOUR)
S721	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(4)
S722	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(9)
S723	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(DIRECT)
S724	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(5)
S725	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(0)
S726	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(EXE DISPLAY)
S727	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(a)
S728	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(SYNC)
S729	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(STANDBY ON/OFF)
S730	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(b)
S731	1-571-187-11	SWITCH, TACTIL (REFLOW TYPE)	(SSB)

< VIBRATOR >

X701	1-577-703-21	VIBRATOR, CERAMIC (2MHz)
X702	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)

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1-644-696-11 MOTOR FLEXIBLE BOARD

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****

A-3662-421-A SIGNAL BOARD, COMPLETE

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< CAPACITOR >

C1	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C2	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3	1-164-346-11	CERAMIC CHIP	1uF		16V
C4	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C5	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C9	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C11	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C12	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C14	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C16	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C17	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C18	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C19	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C20	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C21	1-162-926-11	CERAMIC CHIP	82PF	5%	50V
C22	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C24	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C25	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C26	1-162-926-11	CERAMIC CHIP	82PF	5%	50V
C27	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V

SIGNAL

Ref. No.	Part No.	Description		Remark	
C28	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C29	1-126-607-11	ELECT CHIP	47uF	20%	4V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C31	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C32	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C33	1-126-607-11	ELECT CHIP	47uF	20%	4V
C34	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C36	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C38	1-126-607-11	ELECT CHIP	47uF	20%	4V
C39	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C40	1-164-376-11	CERAMIC CHIP	11PF	5%	50V
C41	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C42	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C43	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C44	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C45	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C102	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C103	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C104	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C105	1-164-346-11	CERAMIC CHIP	1uF		16V
C106	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-164-346-11	CERAMIC CHIP	1uF		16V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-124-779-00	ELECT CHIP	10uF	20%	16V
C111	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C112	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C113	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C114	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C116	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C117	1-110-967-11	TANTAL. CHIP	100uF	20%	4V
C118	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C119	1-126-607-11	ELECT CHIP	47uF	20%	4V
C120	1-164-346-11	CERAMIC CHIP	1uF		16V
C121	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C122	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C123	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C124	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C125	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C126	1-164-346-11	CERAMIC CHIP	1uF		16V
C127	1-164-346-11	CERAMIC CHIP	1uF		16V
C128	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C129	1-162-904-11	CERAMIC CHIP	0.5PF	0.25PF	50V
C201	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C202	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C203	1-126-607-11	ELECT CHIP	47uF	20%	4V
C204	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C205	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C206	1-162-847-11	CERAMIC	0.047uF	10%	16V
C207	1-162-905-11	CERAMIC CHIP	1PF	0.25PF	50V
C208	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C210	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C211	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C212	1-126-607-11	ELECT CHIP	47uF	20%	4V
C213	1-164-346-11	CERAMIC CHIP	1uF		16V
C214	1-164-346-11	CERAMIC CHIP	1uF		16V
C215	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C217	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C218	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C219	1-130-834-00	FILM	1uF	10%	63V
C220	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C221	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C222	1-107-811-11	TANTAL. CHIP	47uF	20%	4V
C223	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C224	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C225	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C226	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C227	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C228	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C229	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C230	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C231	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C232	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C233	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C234	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C301	1-164-346-11	CERAMIC CHIP	1uF		16V
C302	1-164-346-11	CERAMIC CHIP	1uF		16V
C303	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C304	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C305	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C306	1-107-811-11	TANTAL. CHIP	47uF	20%	4V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-110-967-11	TANTAL. CHIP	100uF	20%	4V
C309	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C310	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C311	1-164-346-11	CERAMIC CHIP	1uF		16V
C312	1-164-346-11	CERAMIC CHIP	1uF		16V
C313	1-164-346-11	CERAMIC CHIP	1uF		16V
C314	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C315	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C316	1-164-346-11	CERAMIC CHIP	1uF		16V
C317	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C318	1-164-346-11	CERAMIC CHIP	1uF		16V

Ref. No.	Part No.	Description			Remark
C319	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C320	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C321	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C322	1-164-346-11	CERAMIC CHIP	1uF		16V
C323	1-126-607-11	ELECT CHIP	47uF	20%	4V
C324	1-110-967-11	TANTAL. CHIP	100uF	20%	4V
C325	1-164-346-11	CERAMIC CHIP	1uF		16V
C326	1-164-346-11	CERAMIC CHIP	1uF		16V
C401	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C402	1-164-346-11	CERAMIC CHIP	1uF		16V
C403	1-124-779-00	ELECT CHIP	10uF	20%	16V
C404	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C405	1-164-346-11	CERAMIC CHIP	1uF		16V
C406	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C407	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C408	1-164-346-11	CERAMIC CHIP	1uF		16V
C409	1-164-346-11	CERAMIC CHIP	1uF		16V
C410	1-128-391-11	ELECT CHIP	330uF	20%	6.3V
C411	1-126-607-11	ELECT CHIP	47uF	20%	4V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C414	1-164-346-11	CERAMIC CHIP	1uF		16V
C415	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C418	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C419	1-126-607-11	ELECT CHIP	47uF	20%	4V
C420	1-164-346-11	CERAMIC CHIP	1uF		16V
C421	1-124-779-00	ELECT CHIP	10uF	20%	16V
C422	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C423	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C425	1-164-346-11	CERAMIC CHIP	1uF		16V

< FILTER >

CF101	1-760-199-11	FILTER, CERAMIC
CF102	1-579-974-11	FILTER, CERAMIC
CF103	1-579-974-11	FILTER, CERAMIC
CF104	1-577-065-31	FILTER, CERAMIC

< CONNECTOR >

* CN201	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P
CN202	1-573-370-21	CONNECTOR, FFC/FPC 30P
CN203	1-573-360-21	CONNECTOR, FFC/FPC 20P

< TRIMMER >

CT1	1-141-327-11	CAP, VAR, TRIMMER (CHIP TYPE) 10P
CT2	1-141-327-11	CAP, VAR, TRIMMER (CHIP TYPE) 10P
CT201	1-141-327-11	CAP, VAR, TRIMMER (CHIP TYPE) 10P

Ref. No.	Part No.	Description	Remark

< DIODE >

D1	8-719-941-86	DIODE	DAN202U
D2	8-719-044-76	DIODE	1SS356-TW11
D3	8-719-002-81	DIODE	1T363
D4	8-719-002-81	DIODE	1T363
D5	8-719-800-76	DIODE	1SS226
D6	8-719-044-76	DIODE	1SS356-TW11
D7	8-719-044-76	DIODE	1SS356-TW11
D8	8-719-044-76	DIODE	1SS356-TW11
D9	8-719-044-76	DIODE	1SS356-TW11
D101	8-719-002-81	DIODE	1T363
D102	8-719-002-81	DIODE	1T363
D103	8-719-988-62	DIODE	1SS355
D201	8-719-002-81	DIODE	1T363
D202	8-719-988-62	DIODE	1SS355
D301	8-719-988-62	DIODE	1SS355
D302	8-719-977-39	DIODE	DTZ13A
D303	8-719-988-62	DIODE	1SS355
D401	8-719-053-18	DIODE	1SR154-400TE-25
D402	8-719-053-18	DIODE	1SR154-400TE-25
D403	8-719-988-62	DIODE	1SS355
D404	8-719-977-39	DIODE	DTZ13A

< IC >

IC101	8-752-064-32	IC	CXA1376AM
IC201	8-759-351-32	IC	uPD1724GB-687-1A7
IC301	8-759-804-76	IC	LA5002M
IC302	8-759-804-98	IC	LA3335M
IC402	8-759-255-02	IC	S-80723SN-DL-T1
IC403	8-752-058-42	IC	CXA1622M

< JACK >

J1	1-573-178-11	JACK (EXT ANT)
J401	1-580-372-11	JACK, DC (POLARITY UNIFIED TYPE) (DC IN 3V)
J402	1-573-177-11	JACK (Ω)
J403	1-774-045-11	JACK (MIC PLUG IN POWER)

< COIL >

L1	1-412-979-21	INDUCTOR	1uH
L2	1-412-963-11	INDUCTOR	100uH
L3	1-412-993-11	INDUCTOR	15uH
L4	1-412-978-21	INDUCTOR	0.82uH
L5	1-412-978-21	INDUCTOR	0.82uH
L6	1-410-658-31	INDUCTOR CHIP	220uH
L7	1-412-987-31	INDUCTOR	4.7uH
L8	1-412-990-31	INDUCTOR	8.2uH
L9	1-412-978-21	INDUCTOR	0.82uH
L10	1-412-979-21	INDUCTOR	1uH

SIGNAL

Ref. No.	Part No.	Description		Remark
L11	1-412-978-21	INDUCTOR	0.82uH	
L12	1-412-973-11	INDUCTOR	0.33uH	
L101	1-412-989-11	INDUCTOR	6.8uH	
L102	1-410-658-31	INDUCTOR CHIP	220uH	
L104	1-412-991-11	INDUCTOR	10uH	
L201	1-412-987-31	INDUCTOR	4.7uH	
L202	1-412-975-31	INDUCTOR	0.47uH	
L301	1-412-996-31	INDUCTOR	27uH	
L302	1-410-658-31	INDUCTOR CHIP	220uH	
		< TRANSISTOR >		
Q1	8-729-423-52	TRANSISTOR	2SC3931-C	
Q2	8-729-123-86	TRANSISTOR	2SK238-K16	
Q3	8-729-423-52	TRANSISTOR	2SC3931-C	
Q4	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q5	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q6	8-729-402-16	TRANSISTOR	XN4608	
Q7	8-729-123-86	TRANSISTOR	2SK238-K16	
Q8	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q9	8-729-402-96	TRANSISTOR	UN5114	
Q10	8-729-116-64	TRANSISTOR	2SK508-K51	
Q11	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q12	8-729-116-64	TRANSISTOR	2SK508-K51	
Q13	8-729-116-64	TRANSISTOR	2SK508-K51	
Q14	8-729-208-47	TRANSISTOR	2SK210-GR	
Q101	8-729-420-44	TRANSISTOR	UN5210	
Q102	8-729-402-55	TRANSISTOR	2SB1218A-R-TX	
Q103	8-729-420-44	TRANSISTOR	UN5210	
Q104	8-729-423-52	TRANSISTOR	2SC3931-C	
Q105	8-729-402-96	TRANSISTOR	UN5114	
Q106	8-729-403-07	TRANSISTOR	XN1213	
Q107	8-729-420-44	TRANSISTOR	UN5210	
Q108	8-729-420-44	TRANSISTOR	UN5210	
Q201	8-729-423-52	TRANSISTOR	2SC3931-C	
Q202	8-729-208-47	TRANSISTOR	2SK210-GR	
Q203	8-729-423-52	TRANSISTOR	2SC3931-C	
Q204	8-729-402-16	TRANSISTOR	XN4608	
Q205	8-729-402-16	TRANSISTOR	XN4608	
Q206	8-729-220-93	TRANSISTOR	2SK209-G	
Q207	8-729-220-93	TRANSISTOR	2SK209-G	
Q208	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q301	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q302	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q303	8-729-402-16	TRANSISTOR	XN4608	
Q304	8-729-402-16	TRANSISTOR	XN4608	
Q305	8-729-420-44	TRANSISTOR	UN5210	
Q306	8-729-402-96	TRANSISTOR	UN5114	
Q307	8-729-420-44	TRANSISTOR	UN5210	
Q308	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q309	8-729-403-07	TRANSISTOR	XN1213	
Q310	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q311	8-729-420-44	TRANSISTOR	UN5210	
Q312	8-729-402-96	TRANSISTOR	UN5114	
Q313	8-729-800-37	TRANSISTOR	2SD1048-X7	
Q401	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q402	8-729-420-44	TRANSISTOR	UN5210	
Q403	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q404	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q405	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q406	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q407	8-729-420-44	TRANSISTOR	UN5210	
Q408	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q409	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q410	8-729-420-44	TRANSISTOR	UN5210	
Q411	8-729-403-07	TRANSISTOR	XN1213	
Q412	8-729-807-87	TRANSISTOR	2SB1295-UL6	
Q413	8-729-402-13	TRANSISTOR	XN1501	
Q414	8-729-403-07	TRANSISTOR	XN1213	
Q415	8-729-420-44	TRANSISTOR	UN5210	
Q416	8-729-402-32	TRANSISTOR	2SD1819A-R	
Q417	8-729-420-44	TRANSISTOR	UN5210	
		< RESISTOR >		
R1	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R2	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R3	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R5	1-216-797-11	METAL CHIP	10 5% 1/16W	
R6	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	
R7	1-216-847-11	METAL CHIP	150K 5% 1/16W	
R8	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R9	1-216-833-11	METAL CHIP	10K 5% 1/16W	
R10	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	
R11	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R12	1-216-841-11	METAL CHIP	47K 5% 1/16W	
R13	1-216-837-11	METAL CHIP	22K 5% 1/16W	
R14	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R15	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R17	1-216-797-11	METAL CHIP	10 5% 1/16W	
R18	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R19	1-216-833-11	METAL CHIP	10K 5% 1/16W	
R20	1-216-845-11	METAL CHIP	100K 5% 1/16W	
R21	1-216-817-11	METAL CHIP	470 5% 1/16W	
R22	1-216-805-11	METAL CHIP	47 5% 1/16W	
R23	1-216-809-11	METAL CHIP	100 5% 1/16W	
R24	1-216-833-11	METAL CHIP	10K 5% 1/16W	
R25	1-216-823-11	METAL CHIP	1.5K 5% 1/16W	
R26	1-216-853-11	METAL CHIP	470K 5% 1/16W	
R27	1-216-797-11	METAL CHIP	10 5% 1/16W	

Ref. No.	Part No.	Description			Remark
R28	1-216-809-11	METAL CHIP	100	5%	1/16W
R29	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R30	1-216-817-11	METAL CHIP	470	5%	1/16W
R31	1-216-845-11	METAL CHIP	100K	5%	1/16W
R32	1-216-839-11	METAL CHIP	33K	5%	1/16W
R33	1-216-841-11	METAL CHIP	47K	5%	1/16W
R34	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R35	1-216-821-11	METAL CHIP	1K	5%	1/16W
R36	1-216-821-11	METAL CHIP	1K	5%	1/16W
R37	1-216-797-11	METAL CHIP	10	5%	1/16W
R38	1-216-797-11	METAL CHIP	10	5%	1/16W
R39	1-216-797-11	METAL CHIP	10	5%	1/16W
R40	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R41	1-216-797-11	METAL CHIP	10	5%	1/16W
R42	1-216-805-11	METAL CHIP	47	5%	1/16W
R43	1-216-815-11	METAL CHIP	330	5%	1/16W
R101	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R102	1-216-851-11	METAL CHIP	330K	5%	1/16W
R103	1-216-837-11	METAL CHIP	22K	5%	1/16W
R104	1-216-838-11	METAL CHIP	27K	5%	1/16W
R105	1-216-809-11	METAL CHIP	100	5%	1/16W
R106	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R107	1-216-841-11	METAL CHIP	47K	5%	1/16W
R109	1-216-817-11	METAL CHIP	470	5%	1/16W
R110	1-216-813-11	METAL CHIP	220	5%	1/16W
R111	1-216-837-11	METAL CHIP	22K	5%	1/16W
R112	1-216-845-11	METAL CHIP	100K	5%	1/16W
R113	1-216-849-11	METAL CHIP	220K	5%	1/16W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R115	1-216-797-11	METAL CHIP	10	5%	1/16W
R116	1-216-845-11	METAL CHIP	100K	5%	1/16W
R117	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R118	1-216-833-11	METAL CHIP	10K	5%	1/16W
R119	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R120	1-216-845-11	METAL CHIP	100K	5%	1/16W
R121	1-216-833-11	METAL CHIP	10K	5%	1/16W
R201	1-216-817-11	METAL CHIP	470	5%	1/16W
R202	1-216-841-11	METAL CHIP	47K	5%	1/16W
R203	1-216-797-11	METAL CHIP	10	5%	1/16W
R204	1-216-803-11	METAL CHIP	33	5%	1/16W
R205	1-216-805-11	METAL CHIP	47	5%	1/16W
R206	1-216-805-11	METAL CHIP	47	5%	1/16W
R207	1-216-839-11	METAL CHIP	33K	5%	1/16W
R208	1-216-803-11	METAL CHIP	33	5%	1/16W
R209	1-216-841-11	METAL CHIP	47K	5%	1/16W
R210	1-216-797-11	METAL CHIP	10	5%	1/16W
R213	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R214	1-216-841-11	METAL CHIP	47K	5%	1/16W
R215	1-216-841-11	METAL CHIP	47K	5%	1/16W
R216	1-216-841-11	METAL CHIP	47K	5%	1/16W
R217	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R218	1-216-841-11	METAL CHIP	47K	5%	1/16W
R219	1-216-797-11	METAL CHIP	10	5%	1/16W
R220	1-216-809-11	METAL CHIP	100	5%	1/16W
R221	1-216-809-11	METAL CHIP	100	5%	1/16W
R222	1-216-833-11	METAL CHIP	10K	5%	1/16W
R223	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R224	1-216-835-11	METAL CHIP	15K	5%	1/16W
R225	1-216-833-11	METAL CHIP	10K	5%	1/16W
R226	1-216-833-11	METAL CHIP	10K	5%	1/16W
R227	1-216-835-11	METAL CHIP	15K	5%	1/16W
R228	1-216-797-11	METAL CHIP	10	5%	1/16W
R229	1-216-843-11	METAL CHIP	68K	5%	1/16W
R230	1-216-833-11	METAL CHIP	10K	5%	1/16W
R231	1-216-843-11	METAL CHIP	68K	5%	1/16W
R232	1-216-843-11	METAL CHIP	68K	5%	1/16W
R233	1-216-843-11	METAL CHIP	68K	5%	1/16W
R234	1-216-843-11	METAL CHIP	68K	5%	1/16W
R235	1-216-839-11	METAL CHIP	33K	5%	1/16W
R236	1-216-839-11	METAL CHIP	33K	5%	1/16W
R237	1-216-839-11	METAL CHIP	33K	5%	1/16W
R238	1-216-839-11	METAL CHIP	33K	5%	1/16W
R239	1-216-839-11	METAL CHIP	33K	5%	1/16W
R240	1-216-843-11	METAL CHIP	68K	5%	1/16W
R241	1-216-839-11	METAL CHIP	33K	5%	1/16W
R242	1-216-843-11	METAL CHIP	68K	5%	1/16W
R243	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R244	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R245	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R246	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R247	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R248	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R249	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R250	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R251	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R301	1-216-821-11	METAL CHIP	1K	5%	1/16W
R302	1-216-843-11	METAL CHIP	68K	5%	1/16W
R303	1-216-845-11	METAL CHIP	100K	5%	1/16W
R304	1-216-845-11	METAL CHIP	100K	5%	1/16W
R305	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R306	1-216-837-11	METAL CHIP	22K	5%	1/16W
R307	1-216-841-11	METAL CHIP	47K	5%	1/16W
R308	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R309	1-216-837-11	METAL CHIP	22K	5%	1/16W
R310	1-216-841-11	METAL CHIP	47K	5%	1/16W
R311	1-216-797-11	METAL CHIP	10	5%	1/16W
R312	1-216-845-11	METAL CHIP	100K	5%	1/16W

SIGNAL

Ref. No.	Part No.	Description			Remark
R313	1-216-833-11	METAL CHIP	10K	5%	1/16W
R314	1-216-821-11	METAL CHIP	1K	5%	1/16W
R315	1-216-841-11	METAL CHIP	47K	5%	1/16W
R316	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R317	1-216-809-11	METAL CHIP	100	5%	1/16W
R318	1-216-840-11	METAL CHIP	39K	5%	1/16W
R319	1-216-833-11	METAL CHIP	10K	5%	1/16W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R402	1-216-833-11	METAL CHIP	10K	5%	1/16W
R403	1-216-821-11	METAL CHIP	1K	5%	1/16W
R404	1-216-821-11	METAL CHIP	1K	5%	1/16W
R405	1-216-833-11	METAL CHIP	10K	5%	1/16W
R407	1-216-821-11	METAL CHIP	1K	5%	1/16W
R408	1-216-821-11	METAL CHIP	1K	5%	1/16W
R409	1-216-818-11	METAL CHIP	560	5%	1/16W
R410	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R411	1-216-841-11	METAL CHIP	47K	5%	1/16W
R412	1-216-821-11	METAL CHIP	1K	5%	1/16W
R413	1-216-821-11	METAL CHIP	1K	5%	1/16W
R414	1-216-833-11	METAL CHIP	10K	5%	1/16W
R415	1-216-833-11	METAL CHIP	10K	5%	1/16W
R416	1-216-821-11	METAL CHIP	1K	5%	1/16W
R417	1-216-821-11	METAL CHIP	1K	5%	1/16W
R418	1-216-833-11	METAL CHIP	10K	5%	1/16W
R419	1-216-805-11	METAL CHIP	47	5%	1/16W
R420	1-216-837-11	METAL CHIP	22K	5%	1/16W
R421	1-216-837-11	METAL CHIP	22K	5%	1/16W
R422	1-216-833-11	METAL CHIP	10K	5%	1/16W
R423	1-216-833-11	METAL CHIP	10K	5%	1/16W
R424	1-216-805-11	METAL CHIP	47	5%	1/16W
R425	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R426	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R427	1-216-815-11	METAL CHIP	330	5%	1/16W
R428	1-216-815-11	METAL CHIP	330	5%	1/16W
R429	1-216-841-11	METAL CHIP	47K	5%	1/16W

< VARIABLE RESISTOR >

RV101	1-241-597-11	RES, ADJ, METAL GRAZE 100K
RV102	1-241-597-11	RES, ADJ, METAL GRAZE 100K
RV301	1-241-595-11	RES, ADJ, METAL GRAZE 22K
RV401	1-223-967-11	RES, VAR, CARBON 50K (VOLUME ◢)

< SWITCH >

S1	1-572-552-11	SWITCH, SLIDE (SENS)
S201	1-554-088-00	SWITCH, KEY BOARD (■)
S202	1-554-088-00	SWITCH, KEY BOARD (◀▶)
S203	1-554-088-00	SWITCH, KEY BOARD (FF)
S204	1-554-088-00	SWITCH, KEY BOARD (REW)
S205	1-554-088-00	SWITCH, KEY BOARD (REC)
S206	1-553-510-00	SWITCH, SLIDE (HOLD)
S401	1-572-552-11	SWITCH, SLIDE (ST/MONO)
S402	1-572-552-11	SWITCH, SLIDE (TONE)

< TRANSFORMER >

T1	1-426-468-11	TRANSFORMER, HIGH FREQUENCY
T2	1-411-446-21	COIL (FM ANT)
T3	1-411-445-21	COIL (FM RF)
T4	1-426-357-11	TRANSFORMER, RF
T5	1-403-633-11	TRANSFORMER, IF
T6	1-403-634-11	TRANSFORMER, IF
T101	1-403-638-11	COIL (WITH CORE) (OSC)
T102	1-403-632-11	COIL (WITH CORE)
T103	1-403-630-11	COIL (WITH CORE) (OSC)
T201	1-403-629-11	COIL (WITH CORE) (OSC)
T301	1-449-021-21	COIL, DC/DC CONVERTER

< VIBRATOR >

X101	1-760-200-11	VIBRATOR, CERAMIC (3.64MHz)
X102	1-760-197-11	VIBRATOR, CRYSTAL (55.39MHz)
X201	1-579-744-21	VIBRATOR, CRYSTAL (75kHz)

< FILTER >

XF1	1-760-198-11	FILTER, CRYSTAL (55.845MHz)

****

MISCELLANEOUS

****

63	1-658-875-11	FLEXIBLE (B) BOARD
123	1-658-876-11	FLEXIBLE (C) BOARD
124	1-658-874-11	FLEXIBLE (A) BOARD
126	1-658-877-11	FREXIBLE (LEAF) BOARD
127	1-644-696-11	MOTOR FREXIBLE BOARD
ANT1	1-501-793-11	ANTENNA, FERRITE-ROD (LW.MW)
ANT2	1-501-794-11	ANTENNA, TELESCOPIC (FM)
HE501	1-500-059-11	HEAD, MAGNETIC (ERASE)
HRP501	1-500-060-11	HEAD, MAGNETIC (RECORD/PLAYBACK)
M601	1-698-084-11	MOTOR
S503	1-692-100-11	SWITCH, LEAF (CLAW DET FWD(ATS/REC B))
S504	1-692-101-11	SWITCH, LEAF (CLAW DET REV(TAPE/REC A))
SP401	1-505-141-11	SPEAKER (4.5CM)

****

Ref. No.	Part No.	Description	Remark

****
HARDWARE LIST
****

#1 7-685-152-19 SCREW +BTP 3X25 TYPE2 N-S
#2 7-624-104-04 STOP RING 2.0, TYPE -E
#3 7-627-553-17 PRECISION SCREW +P 2X2 TYPE 3

****

ACCESSORIES & PACKING MATERIALS
****

⚠ 1-506-443-01 ADAPTOR, PLUG (JE)
1-542-116-11 MICROPHONE
3-800-621-01 MANUAL, INSTRUCTION (JAPANESE, ENGLISH, KOREAN, ARABIC) (EA, JE)
3-800-621-11 MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE, SWEDISH) (US, AEP, E)

3-800-621-21 MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH) (AEP, UK, IT, Canadian)
3-893-802-11 BOOK, GUIDE, WAVE (EXCEPT EA)
* 3-912-863-01 GUIDE, SHOOT WAVE (EA)
3-929-852-01 STRAP, HAND

3-930-303-01 CASE, CARRYING
8-953-538-90 HEADPHONE MDR-E741//K SET
X-3329-657-1 ATTACHMENT

****

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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